Lecture
ON
THE ANTISEPTIC TREATMENT OF TYPHOID FEVER.

Delivered at King's College Hospital,

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(*Concluded from p. 813.*)

THE following cases do not represent the most remarkable or the very best results I have observed from this treatment, but I present them as *consecutive*, not selected cases.

CASE 1.—L. H——, a young married woman, twenty years of age, was admitted, with well-marked symptoms of typhoid, into King's College Hospital. There were albumen in the urine, some rhonchi over the left lung, and a loud systolic murmur over the base of the heart. Her temperature was 104·2°, and it rose to 105° in the evening of the third day after admission. The day before this she began the chlorine and quinine mixture, taking a dose every four hours. Two days afterwards the temperature did not rise above 102·4°, and the next day 102·8°. It rose again, however, on the fourth day to 104°, fell the next evening to 103·2°, and on the seventh, just a week after commencing the medicine, to 101·2°, and never again rose above 101°, but fell pretty steadily, and was 98° on the evening of the twenty-first day after her admission into the hospital. She was then practically convalescent, and she was able to get up just one month after her admission. Now this case, at the onset, had by no means a favourable aspect. There was a temperature of 105°, much mental oppression and sluggishness, much abdominal distension and tympanites, a tremulous tongue, a loud basic murmur, which disappeared during convalescence, some albumen in the urine, a good deal of splenic enlargement, and some congestive bronchitis of the left lung. I do not think it is possible to look on this chart showing the progress of this case, and not be impressed with the fact that the average course of the disease was greatly modified and favourably influenced by the treatment.

CASE 2.—H. B——, a young man nineteen years of age, was admitted into King's College Hospital on March 11th with the usual symptoms of typhoid fever. His temperature on admission was 103°; on the evenings of the 12th and 13th it reached 104·4°. There was diarrhœa, and his motions were noted as "very offensive." The chlorine and quinine mixture was begun on the 12th; on the 14th the temperature began to fall, and on the 16th the highest temperature recorded was 101°; on the evening of the next day it was 102·2°, but fell again on the following day, and for the next three days did not rise above 101·2°; then, the bowels having become constipated, the temperature rose on the following three days to 102°, 102·6°, and 103·4° respectively. Two or three enemata of olive oil and water were given, and on the 24th, twelve days after the commencement of the treatment, it began to fall steadily, and reached normal on the 28th, from which date the convalescence was rapid and uninterrupted. Here, again, I do not think one can look at this chart without seeing that the course of the disease was greatly and favourably modified by the treatment.

CASE 3.—W. H——, a seaman twenty-three years of age, was admitted into King's College Hospital with typhoid fever on March 20th. It was noted that the motions were very offensive. The temperature on admission was 103·2°. He began the chlorine and quinine mixture on the 21st, and on the 23rd it was reported that the motions had lost their offensive odour. His temperature fell at once and steadily, and was on the evening of the 23rd 101·8°; it oscillated between 101° and 102° till April the 5th, when it fell steadily to normal, and he was convalescent just three weeks after his admission.

CASE 4.—M. W——, a female nineteen years of age, was admitted with typhoid fever on March 22nd. There was diarrhœa, much abdominal tympanites, and the motions were very offensive. The temperature was 103·6°. The chlorine and quinine mixture was begun as the 23rd, and on the 26th the motions had lost their offensive character. On the 25th the temperature began to fall, and fell steadily to 100° on the 29th; it rose again to 101·2° on the 31st, fell to 100·2° for the next two days, rose to 101° on April 3rd, and to 102° on the 6th, and then fell steadily to normal on the 12th, three weeks after admission. She made a rapid and uninterrupted convalescence.

I could bring before you the histories of many other cases, but they all tell the same story—great modification of the temperature curve, deodorisation of the motions, cleaning of the tongue, maintenance of a comparative well-being and much less evidence of a septic state of blood, rapid convalescence, and much less loss of strength than is ordinarily observed after an attack of typhoid fever. I may mention, however, another case where I had departed somewhat from my ordinary prescription, and had ordered liquor chlori with quinine, instead of the mixture I have described. The temperature was reduced, and the case appeared to be doing very well, when unexpectedly the temperature rapidly rose from 101·6°, to which level it had been reduced for three or four days, to 104·4°. This was disappointing, and I asked to see the medicine which had been last supplied, and then I found that in this last supply the dispenser had substituted aquæ chloroformi for liquor chlori. This was an important observation, because it showed that it was not the quinine alone which was effective, but the combination of chlorine with quinine. During this interruption of the chlorine the offensive odour of the stools quickly reappeared, and disappeared as quickly on the resumption of the chlorine mixture. The case eventually did well.

In commending this method of treating typhoid fever to your notice as supporting the idea of the value both of general and local antisepsis in this disease, I am far from wishing you to conclude that this is the very best method to follow in all cases, or that a more perfect antiseptic treatment may not be attainable. It seems probable from recent observations that various antiseptic methods may be adopted with advantage, and that some constitutions may be influenced more readily and favourably by one method than by another. I will endeavour therefore now to complete as well as I am able the history of the application of this idea. The important point is that the *idea* of an antiseptic treatment of typhoid fever should take possession of your minds; the methods of applying the idea will grow more and more perfect as our knowledge of all the conditions of the problem grows more complete.

The use of β-naphthol as adopted by Professor Bouchard to produce intestinal antisepsis has had many supporters. Professor Petresco of Bucharest has borne valuable testimony to the efficacy of this drug. He had experimented with carbolic acid, salicylic acid, turpentine, benzoic acid, kairin, calomel, corrosive sublimate, and boric acid without any very favourable results. He then tried a saturated solution of sulphide of carbon, with which he was much better pleased; and lastly he tried naphthol, fifteen grains three times a day, and he reports that he had results more favourable than with any other remedy, that the rate of mortality was reduced, and the course of the disease favourably modified. Dr. J. Mitchell Clarke[1] of Bristol has also recorded some observations on the use of β-naphthol and also of hydro-naphthol in typhoid fever. Hydro-naphthol is prepared from β-naphthol. It is less soluble, and melts at a lower temperature, and it is said to be absolutely innocuous. Like β-naphthol, it has a faint odour of carbolic acid, and like it, though less so, it leaves a pungent and burning after-taste in the mouth. He gave hydro-naphthol in five cases of typhoid fever, and all did well; two were severe and protracted cases. It soon stopped the diarrhœa, and the stools lost their offensive odour. He gave from three to four grains every two hours until the diarrhœa was checked, and then every three hours so long as there was fever. He thus summarises his results from the use of naphthol in typhoid fever:—1. A reduction in the average duration of the fever. 2. Stools become much less offensive. 3. A diminution of abdominal tenderness and meteorism. 4. Early cleansing of tongue and less dryness of mouth and lips. 5. Absence of albuminuria. 6. Convalescence more rapid and strength less reduced. 7. Less risk of propagating the disease to others. 8. Tendency to secondary complications diminished. In two of Dr. Clarke's cases he thought the naphthol caused a milk dyspepsia, and one of

[1] The Practitioner, December, 1888, and July, 1890.

these had a relapse, and he made some experiments with the drug which showed that it retarded the digestion of egg albumen by peptic fluids, and very slightly that of milk, but that it had no effect on the pancreatic digestion of milk or of albuminates. He suggests that all risk of its interference with stomach digestion would be avoided by giving it in pills coated with keratin. This would also get rid of the pungent burning after-taste it is apt to leave in the mouth and throat when given mixed with fluids. A French pharmacist has suggested that it should be given in an emulsion. It can be dissolved in ten times its weight of sweet almond oil with the aid of a gentle heat, and then made into an emulsion with mucilage and syrup. Cream rather than milk would be a good vehicle for the administration of such an emulsion, and this would probably carry it through the stomach into the small intestine. It has also been observed to produce a dark-brown colouration of the urine, and to cause some pain in micturition, due no doubt to the absorption of a certain quantity from the intestine and its elimination by the kidneys. M. Maximovitch[2] recommends α-naphthol as preferable to β naphthol. It is three times less toxic, and as to its antiseptic value, he found 1 part in 10,000 would prevent the development of the typhoid bacillus, as well as that of many other septic microbes, in ordinary cultivation fluids. Dr. Moncorvo of Rio[3] has given β-naphthol to children by the mouth in doses of from fifteen to thirty grains in twenty-four hours, and has found that tolerance was always perfect on the part of children. It promptly removed the fetor of the stools, and diminished or removed the tympanites. He states he has obtained remarkably good results from intestinal antisepsis so produced. Dr. Teissier of Lyons also prefers α-naphthol for producing intestinal antisepsis in typhoid fever. He read a paper recently before the Congress at Limoges, in which he spoke very highly of the results he had obtained by this method of treatment. He gives it in six-grain doses, combined with salicylate of bismuth, and he at the same time promotes free diuresis by cold water enemata. He also gives enemata of quinine and cinchona as an "anti-thermic tonic." He observed that as soon as intestinal antisepsis was established the urine became green, the temperature fell, the albuminuria disappeared, the spleen diminished in size, and the tongue became remarkably moist. Convalescence was very rapid. He considers the naphthol acts by sterilising the bacterial products in the intestine. Dr. Schwartz[4] has demonstrated that naphthaline administered internally diminishes the number of bacilli in fæcal matter in the proportion of one-third to one-fourth. When its administration is discontinued, this proportion increases again. He states also that he finds calomel increases the efficacy of naphthaline, and he advises a combination of calomel and naphthaline in the treatment of typhoid fever. He also confirms the observations of Bouchard and Legroux. But naphthaline is not so safe or suitable an intestinal antiseptic as β-naphthol or α-naphthol, and in August last a *pharmacien* at Grenoble was fined 500 francs for substituting naphthaline for β-naphthol in making up a prescription for a case of typhoid fever. The advantage of attempting to establish intestinal antisepsis in the treatment of typhoid fever was dwelt upon at a discussion in the New York Academy of Medicine in January of last year. Dr. W. H. Thomson, of the Roosevelt Hospital, where he had had large opportunities of treating cases of typhoid fever, advocated it strongly, but his method differs somewhat from those we have been considering. In the first place, he looks carefully to the food administered, and that is an important point, to which I shall presently return. He never gives milk undiluted, but always mixed with an equal quantity of lime water, which he believes to be "no mean antiseptic." He objects to beef-tea as setting up gastro-intestinal fermentation. He gives also ten grains of saccharated pepsin with ten minims of dilute hydrochloric acid every three hours, with the object, I presume, of promoting the complete digestion and absorption of the food, and so leaving but little residue to ferment and decompose in the small intestine, the mineral acid being also an antiseptic. He also gives ten grains of subcarbonate of bismuth every three hours, sometimes both medicines every two hours. He regards these (he has used turpentine and nitrate of silver with advantage) as the best agents for the purposes of intestinal antisepsis. All the preparations of bismuth are doubtless useful for this purpose, especially when there is diarrhœa, as they are very efficacious in controlling the intestinal catarrh. Sir William Jenner testifies to the same effect. "Carbonate of bismuth," he says, "in twenty grain doses every four or six hours is one of the best remedies I know for the catarrhal inflammation of the bowel itself." Dr. Thomson also advocated at the end of the first week a purge of calomel and compound jalap powder, and Dr. Scatterthwaite in the same discussion advised small doses of calomel at the commencement, and also the use of hydrochloric acid as an antiseptic.

I have already referred to the testimony borne by Sir Thomas Watson to the efficacy of mercury in the treatment of continued fever. It is not a little remarkable to find in the present day Liebermeister[5] advocating strongly the use of the same remedy. Indeed, the administration of calomel in the early days of typhoid fever has now a considerable number of advocates amongst practical physicians of eminence. And it has been suggested that the success of calomel may depend as much upon its *antiseptic* as on its purgative properties—indeed, excellent results have been claimed as following the inunction of mercurial ointment into the abdomen and thighs (fifteen grains at a time) in the early days of the fever.[6] Liebermeister has observed excellent results following the use of two antiseptic substances, the one iodine, the other calomel. You will not fail to notice the close chemical relationship between iodine and chlorine, the latter of which I have myself found give such satisfactory results. Liebermeister's remarks are well worth reproducing here. He says: "Inasmuch as typhoid fever is a disease which is generated by a specific poison, the supposition that a specific antidote might exist, and the consequent search for the same, are not so absurd as people thought them during that period when all therapeutic wisdom was supposed to have culminated in the expectant plan of treatment." And he goes on to express an opinion that both iodine and calomel may possibly have a specific influence over the fever. He used a solution of iodine in iodide of potassium, and gave a dose every two hours. In 200 cases he treated in this way the mortality was less than in cases treated at the same time similarly in every other respect, but without the iodine. So also with regard to calomel. Comparing 200 cases treated with calomel with a large number treated without, but otherwise precisely alike, under the calomel treatment the rate of mortality was decidedly lower. He gave it in every case that came under treatment before the ninth day of the fever, usually about eight grains for a dose three or four times in the first twenty-four hours. He treated 800 cases in this way with such excellent results that he resolved to continue the method himself and to recommend it to others. He believes it materially shortens the duration and lessens the intensity of the disease. He considers that an adult should have three or more eight or ten grain doses. He is inclined to conclude that it exerts a specific influence.

Many physicians have recorded their approval of an initial laxative, and no doubt it is well if there is no diarrhœa to begin with one, we shall then have less hesitation in keeping the bowels quiet afterwards. Murchison approved of one or two doses of calomel—three to five grains—during the first week, and before there was much diarrhœa; he believed it rendered the disease milder and shorter. Dr. George Johnson long ago[7] called attention to the ill-effects of locking up the secretions in the bowels in cases of typhoid fever by opium and astringents, and pointed out the advantage of occasionally clearing out the bowels by castor oil or some other aperient. Indeed, it has been said that "purgation and antisepsis are, to some extent, interchangeable terms." An aperient expels the poisonous ptomaines and other decomposing substances from the intestinal canal, and if given in the early stages may actually prevent subsequent serious diarrhœa. But the use of aperients, to be perfectly safe, must be limited to the first ten or twelve days of the fever, the great risk attending their use, in the later stages, is the possibility of the existence of deep ulceration in the ileum, and in that case, as Sir William Jenner has pointed out, an aperient may mean the difference between life and death to the patient. At that period of the disease intestinal antisepsis can only be safely secured by the use of

[2] Nouveaux Remèdes, Nos. 4 and 10, Feb. and May, 1888.
[3] Satellite, Feb. 1890.
[4] Berliner Klin. Woch., 1889, Nos. 20-22.
[5] Von Ziemssen's Cyclopædia of Practical Medicine.
[6] Brit. Med. Jour., Jan. 5th, 1889.
[7] Ibid., vol. i. 1867, p. 274.

intestinal antiseptics, such as naphthol, thymol, salicylate of bismuth, &c. Thymol is preferred by some; it is innocuous in full doses, and possesses an antiseptic power four times as great as that of carbolic acid. Cantani considers tannic acid an important intestinal antiseptic, and that it checks the vegetative activity of the bacteria, and renders innocuous the poisonous ptomanies. Mosler agrees with this view, and advises its administration by the rectum. I have always, in private practice, when I have found it advisable to control the diarrhœa, or arrest the tendency to intestinal hæmorrhage, given small tannin injections per anum, and with the most satisfactory results. My usual prescription is from ten to twenty grains of tannic acid, and from two to five grains of Dover's powder, in two ounces of thin mucilage, after each loose action of the bowels.

Finally, if we would maintain intestinal antisepsis, as I believe we should in all cases endeavour to do, we must look carefully to the mode of feeding our typhoid fever patients, which, I have reason to know, is frequently ill calculated for the attainment of that object. I have elsewhere described fully what I consider should be the method of feeding a fever patient.[8] I will only now point out a few things which I think should be avoided. And first, and chiefly, let me insist on the fact that no good can possibly come of pouring down the patient's throat a quantity of food that he cannot absorb, and that will only pass through or accumulate in the small intestine and ferment and decompose there, and aggravate in every possible way the mischief which we desire to lessen or prevent. The typhoid fever patient in the acute stage of the fever can absorb scarcely any food by the stomach; nearly all his digestion is intestinal, and that also is certainly gravely impaired. Sir Wm. Roberts has called attention to this. "In the seriously sick," he says, "the stomach becomes often inoperative, and digestion becomes almost exclusively intestinal. In the febrile sick the stomach loses its normal office and becomes merely a conduit to pass on the liquid food to the duodenum." Sir Wm. Jenner has expressed his disapproval of the large quantities of milk that are often given to typhoid fever patients, to their great detriment, and he has urged upon practitioners the importance of looking for the presence of undigested curd of milk in the stools, and to take warning by its appearance of the mistake they are committing. Excess of zeal in feeding fever patients is, I maintain, responsible for much of the intestinal trouble that complicates these cases. Strong beef-tea, milk, port wine, brandy, and beaten-up eggs are given the patient in rapid succession, and they accumulate in his intestinal canal, and form a fermenting mixture, out of which poisonous ptomaines may be formed; while pure cold water, one of the best of eliminators and antiseptics, is often withheld from the patient. Is it to be wondered at that tympanites and painful flatulent distension of the bowels frequently arise after such feeding? I read of practitioners passing a long tube into the bowel three times a day for the purpose of removing "flatulent distension and foul fæcal accumulations"—accumulations that never ought to have accumulated! In feeding a typhoid fever case you should be guided by a careful observation of the digestive and absorptive capacity still retained by the patient, and you should remember that no good, but harm, is done by giving the patient more food than he absorbs. It must be especially remembered that excellent as milk is as a food, it is a *concentrated* food apt to coagulate into *indigestible curd* on encountering any acid secretions in the stomach or intestines. It should therefore never be given *undiluted* to a fever patient, and it should be made distinctly alkaline, so that it may not form an irritative coagulum when it reaches the stomach, but pass on in the fluid form into the duodenum. For this purpose Vichy water is a good diluent of milk, but a less expensive and very convenient method is to add to each cup of milk and water (half milk and half water), an alkaline tabloid composed of bicarbonate of soda, bicarbonate of potash, carbonate of magnesia (each two grains), and common salt, three grains. This will not only assist the digestion of the milk, but it will add certain necessary salts to the food, which from the absence of vegetable foods the patient does not get. Common salt is also an excellent antiseptic. Let me also protest against the common practice of giving very strong beef-tea to fever patients; it has always seemed to me that the too ordinary practice of giving concentrated beef-tea and sweet port wine to a fever patient was precisely the best means of setting up troublesome septic changes in the intestinal canal. And why this desire to give these very concentrated beef extracts? Everyone with any right to speak with authority on this matter has urged the importance of the free administration of water to carry off the products of metamorphosis, as an eliminant and antiseptic. Why not give some of this water in the form of light, clear soups and broths—far more grateful to the fever patient than strong beef-tea, to which they soon take a great aversion. I am not speaking against meat soups and meat juices—I have argued elsewhere in their favour,—but I am enforcing their rational use and their rational preparation. The clear, light, clean-tasting, nicely flavoured *consommé*—flavoured with fresh vegetables and savoury herbs that every first-rate cook serves at the commencement of a good dinner—is the kind of food for a fever patient. But I will not pursue this part of the subject further, as I have elsewhere fully discussed the principles that should guide us in the feeding of acute diseases; I will only repeat the recommendation to limit the food of the fever patient to that which he is able to absorb.

In the preceding remarks I have thought it my duty to call your attention to the progress that the idea of an antiseptic treatment of typhoid fever is making amongst physicians in all parts of the world; authoritative observations in this direction are becoming more and more numerous, and the reported results are uniformly favourable. I say purposely the *idea* of an antiseptic treatment, because I do not wish to lean with any great stress on any particular manner of carrying this idea out, as we probably have not yet arrived at the very best means for doing so. But I think I have been able to make it clear that the possibility and the duty of maintaining intestinal antisepsis in the treatment of typhoid fever—even if we may not hope, as I think we may, to produce a general antiseptic influence on the circulating fluids—have been admitted by a great and rapidly increasing number of careful and experienced clinical observers and teachers. I believe it is our duty to follow in the same direction, and that by doing so we shall promote the credit of our science by diminishing considerably the mortality from this disease.

[8] Food in Health and Disease, p. 363.

THE IMPORTANCE OF THE POST-PROSTATIC (OR TRIGONAL) POUCH IN THE SURGERY OF VESICAL CALCULUS, ILLUSTRATED BY SEVERAL CASES.[1]

BY G. BUCKSTON BROWNE.

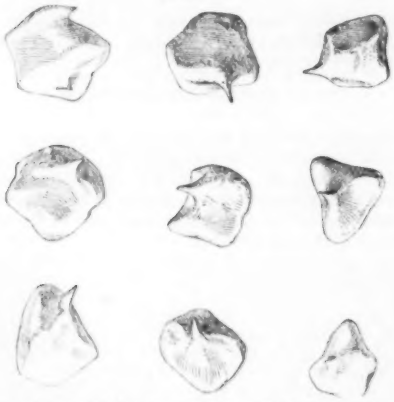
THE surgery of vesical calculus may be considered under two heads: first, the finding of the stone, and, secondly, its removal. Errors in sounding for stone have perhaps attracted more attention than mistakes in the diagnosis of any other surgical malady, and the best way of removing a stone from the bladder is even still a frequent matter for argument and difference of opinion. The chief cause of all this difficulty in diagnosis and difference of opinion as regards the method of removal is the fact that the bladder is not always a simple sac, but sometimes has pouches, pockets, or sacculi opening out of its general cavity, in which stones may lie, and escape the diagnostician's sound or the lithotrite, tube or forceps of the operator. All this is simple enough and known to every surgeon, but the fact that vesical sacculi are of very different kinds is not universally known or appreciated, and great error is caused by speaking loosely of pouched or sacculated bladders, as if all the pouches of a bladder were alike. Bladder pouches may be divided into three varieties: 1. There is the well-recognised sacculus which we may call the ordinary sacculus, and which consists of a protrusion of mucous membrane between the muscular fibres of the bladder. Such sacculi are found in the upper part, at the side, and in the floor of the bladder; and where this is covered with peritoneum, they, too, are covered by the same membrane. 2. A pouch often forms behind the trigone—i.e., behind a line drawn between the vesical orifices of the ureters. It is part of the general cavity of the bladder, but is sometimes deep enough to make difficult the discovery of a stone lying within. This

[1] A paper read before the Medical Society of London, April 13th, 1891

may be called the post-trigonal pouch. 3. There is a post-prostatic or trigonal pouch to which I would particularly draw attention, because I believe it has hitherto received little notice, and because I think it is the chief cause of error in searching for stone and of imperfection in its removal, whether by the lithotrite or by the knife. The post-prostatic pouch is often of extraordinary depth. If the patient be supposed to be lying down, it may be said to consist of the trigone of the bladder, pushed down between the enlarged and projecting prostate in front and a thickened and firm inter-ureteral ridge behind. Where there is much intra-vesical prostatic projection, the pouch may literally be roofed over by this prostatic outgrowth. Calculi in this pouch cause much pain, since the trigone of the bladder has a larger nervous supply than any other portion. Lying as the pouch does in front of and below the orifices of ureters, it is a perfectly contrived trap for the catching and retention of renal calculi upon their entrance into the bladder, and it will readily be seen how favourably the stones are there placed for growth. That they do lie there and grow into extraordinary shapes is shown by several of the stones about to be described. The object of this paper is to put forward the following two propositions for consideration, and to relate illustrative cases. 1. That, owing to the post-prostatic pouch, vesical calculus is often difficult to detect in cases of enlarged prostate, and that if the pouch is deep it may be absolutely impossible to find the stone by any instrument passed in through the urethra. 2. That, owing to the occasional depth of the post-prostatic pouch, lithotrity is sometimes an impracticable operation, it being mechanically impossible to evacuate the bladder of all débris by urethral instrumentation.

CASE 1.—D. T——, aged sixty-eight, seen with Dr. Whittle of Brighton, July, 1886. For seven years all urine by catheter; urine very fetid. By rectum, prostate found very large. A tight urethral stricture at five inches from meatus; urethra nine inches long. Owing to the stricture, catheterism very difficult. I therefore performed internal urethrotomy. After this no difficulty; passed Nos. 13 and 14 with ease.—Feb. 14th, 1887: Patient complains of a pricking pain at the mouth of the bladder; worse when he rides. Sounded him and found a small stone.—Feb. 19th: Lithotrity; a

FIG. 1.



Nine calculi, each bearing a spike, probably the result of friction from being closely packed together in a post-prostatic pouch.

most tedious operation. It seemed that as soon as one calculus was crushed and cleared out the tube and aspirator would suck out another stone from some sac or pocket, for immediately after the débris were withdrawn a stone would rattle against the end of the tube, rendering the reintroduction of the lithotrite necessary. This was repeated over and over again, and I entered in my notes at the time that the bladder must be sacculated. All went well, however, and in July, 1888, I sounded the patient and found nothing. I saw nothing more of him for twelve months, when on June 3rd, 1889, he came up with symptoms which induced me to sound him again, and a stone was found. On June 8th, finding much difficulty in the introduction of instruments, owing to the stricture, and thinking from the sensation my sound gave me when in contact with the stone that it was not a case of calculus free in the cavity of the bladder, I determined to open the bladder above the pubes and found a large intra-vesical prostatic lobe, and below it a pouch almost entirely cut off from the cavity of the bladder, and packed with stones. They were removed one by one, nine altogether, and each bore one curious spike. These spikes, well shown in the engraving (Fig. 1), may simply have resulted from friction, but of this I am not perfectly satisfied. The wound was healed in a fortnight, and on July 12th the patient went home, passing his catheter every five hours, and entirely free from pain. During the summer he walked and rode, and swam in the sea. On July 30th he wrote: "Never better for years. Can cross my legs now, which I could not before, and can sit in any position." On Sept. 13th he came up to London in a dying condition. He had had a long swim, which had been followed by a rigor and severe left renal colic. He died next day, and on the 15th I made a post-mortem examination. The prostate was found projecting into the bladder, as already described, and under it there was an enormous pouch containing one calculus. This calculus was round, had no spike, and was entirely unlike those removed by the supra-pubic operation. Both ureters were dilated, and the left kidney was full of large calculi. It was breaking down into abscess. Fig. 2 shows the prostate and bladder. The

FIG. 2 and FIG. 3.

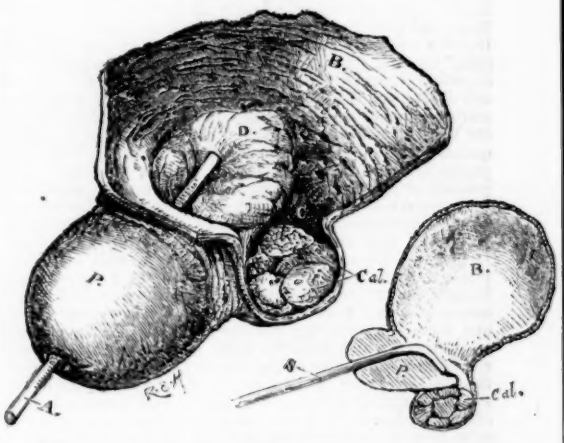


FIG. 2.—A, Piece of bougie showing course of prostatic urethra. B. Bladder wall, behind the inter-ureteral ridge (C). Cal., The nine spicate calculi, in post-prostatic pouch. D, The intra-vesical prostatic growth. P, The prostate.

FIG. 3.—Partly diagrammatic to show how in this case a lithotrite (S) introduced through the urethra failed to reach the calculi.

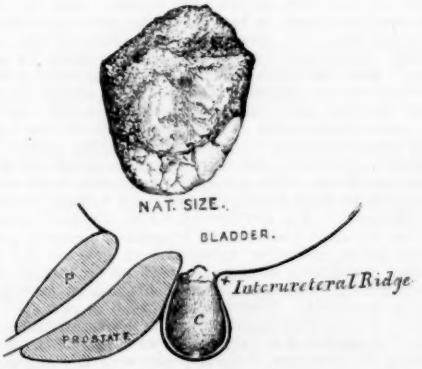
prostatic projection into the bladder (D) will be readily noted; under it lie the nine calculi, which I removed nearly four months before death, but which are replaced to make the engraving complete. It will be seen what difficulties such a case must present, owing to the size and depth of the post-prostatic pouch, both to the surgeon sounding for stone and to the lithotritist. It is also conceivable that lateral perineal lithotomy would not have rid the bladder entirely of its calculous contents. There are many cases well known where experienced surgeons have left calculi in the bladder after the lateral operation, and probably such a condition as the one described has often been the cause. Supra-pubic cystotomy here was perfectly successful; the calculus found in the pouch after death had come down from the kidney quite recently, and corresponded exactly with the other stones found in the left kidney.

CASE 2.—W. O——, aged sixty-eight. Before this patient came to me he had undergone five operations of lithotrity during a period of less than two years, obtaining little, if any, relief. He was suffering greatly. I opened the bladder above the pubes, found a stone firmly fixed in a post-prostatic pouch, and took it out with a spoon exactly

as one would take out half an egg from an egg-cup. The patient was entirely relieved, and made a good recovery. Fig. 4 represents the stone, which was phosphatic, and underneath the engraving shows the relations of this calculus to the bladder and prostate. The stone presented by a small surface in the bladder, and lay in a pouch which was not deep enough to make the detection of the stone difficult by a sound introduced through the urethra, but was sufficiently deep to make successful lithotrity impossible.

The following case, however, is still more remarkable, for while it illustrates the entire futility of lithotrity when the

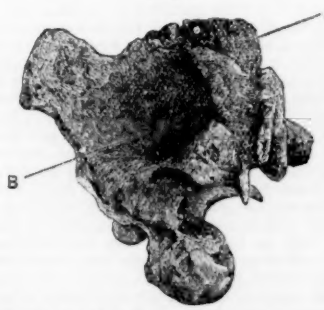
FIG. 4.



calculus is in a deep post-prostatic pouch, the stone is the most unusual one I have ever seen, and is really a cast of the pouch, showing all its irregularities.

CASE 3.—The patient was aged ninety-four. Some years ago he had been subjected to an operation of lithotrity, and more recently he had again undergone that operation. On both occasions the operators had been men of the greatest eminence. Since the last operation he had suffered considerably, and there were now present all the signs of calculus. The effort of rising from his chair brought on violent vesical spasm. Driving and walking were impossible on account of the pain they caused. I told him that he had stone, and begged him to take an anæsthetic and to give me leave to remove the calculus by any means which I might find best at the time of operation, saying that his previous experience of the operation of lithotrity showed that the case was not an ordinary one, but that probably there was some abnormal calculous condition present. Nothing, however, would induce him to undergo another operation, and in three months he died. Upon post-mortem examination the remarkable stone shown in Fig. 5 was

FIG. 5.



removed from behind the prostate. The rough portion marked A was all that presented in the bladder cavity, and this was evidently the surface from which the successive lithotritists had removed the more salient portions of the stone. In front of this rough surface is a smooth cup-shaped cavity, B, in which the intra-vesical prostatic projection played. It will easily be seen that it was impossible to remove this stone by any instruments introduced through the natural passages, and that it could have been thoroughly removed by supra-pubic cystotomy.

(To be concluded.)

CASE OF FACIAL LUPUS HEALED BY KOCH'S METHOD.

BY THOS. WHITESIDE HIME, B.A., M.D., &c.

THIS patient was discharged from the Home for Koch's treatment, Bradford, on March 13th, 1891, cured of his disease, so far as all evidence enabled one to judge. He had been under treatment by Koch's method alone since Dec. 30th, 1890, when he received his first injection, and he had received in all twenty-seven injections, the last on the day of his leaving the Home. He had received the large quantity of 6·367 grammes of tuberculin altogether. The patient is forty-four years old, and a fitter by trade. His family history shows that several maternal uncles and aunts had scrofulous glands, and some died of phthisis, while his father's side was free from this disease. His father died of apoplexy, and his mother is alive and paralysed. Two of the patient's brothers had scrofulous glands in early life, and a brother, now aged about forty-two, has suffered from facial lupus for ten or twelve years, and is now much disfigured by the destructive action of the disease. The patient was healthy as a child, but when about eighteen years of age a hard nodule (gland?) appeared in front of the right ear. It grew slowly for from three to four years, and then began to suppurate, and continued to discharge for from two to three years. There is a white glassy scar about an inch and a half in diameter, and with some pinkish lines running across it, at this spot now. The patient has never had venereal disease in any form. He has a healthy wife, and is the father of seven healthy children. He has always been healthy, except for the lupus, and, so far as he knows, has not been in contact with tubercular cases. About four years ago a roughness of the skin appeared between the eyebrows, and a pimple soon after on the edge of the left nostril. The latter became raw, scabbed from time to time, and gradually spread over the whole of the left nostril, end of the nose, and round to the other nostril. It also extended up the ala of the left nostril and about three-quarters of an inch down the cheek from the angle of the left nostril and cheek. Some months later "a raw pimple" formed on the cheek about half an inch from the left corner of the mouth; later, one appeared on the right upper eyelid, and a few months later still another appeared one inch below the right eye.[1] In the autumn of 1889 he went into the Leeds Infirmary, under the late Mr. McGill, who scraped the nose, forehead, right eyelid, and spot near the mouth, pronouncing the affection to be lupus. The wounds remained healed for some weeks, but then became rather worse than before, and he returned to the infirmary, and the parts were again scraped, as well as the spot below the right eye. The resulting cicatrices broke out afresh in from five to six weeks, and at Whitsuntide, 1890, he entered the Leeds Infirmary for the third time, and the same parts were scraped, and, in addition, the left upper eyelid. The healed cicatrices broke down again in from five to six weeks.

When I saw him the terminal one inch and a half of his nose was of the familiar purple-red colour, hard and brawny; the end was partly scabbed, partly raw, and discharging pus; the right nostril was deeply red at the lower part, the left partially eaten away. The right upper eyelid was scabbed and red; the left red, but not scabbed; the spot at the corner of the mouth was brawny, red, and discharging, being partially scabbed. The patient's general health was good. He complained most of the heat and hardness of his nose, apart from his alarm at the steady extension of the disease. His left upper lip was much thicker than the right, but this he did not complain of; he said it had come on gradually. On Dec. 30th, 1890, he received his first injection of Koch's

[1] The facts of the patient's history, medical and other treatment, I have from himself only.

tuberculin. The number and amount of his injections, as well as the highest temperature reached after each before the next succeeding injection, were as follows:—

No. of injections.	Date.	Amount injected in milligrammes.	Highest temperature.	Maximum pulse.
1	Dec. 30, 1890	0·001	103·0°F.	92
2	Jan. 3, 1891	0·001	103·0	92
3	,, 6 ,,	0·003	103·8	116
4	,, 14 ,,	0·006	103·0	106
5	,, 16 ,,	0·01	103·0	99
6	,, 19 ,,	0·016	102·8	94
7	,, 24 ,,	0·026	103·0	97
8	,, 26 ,,	0·036	99·8	84
9	,, 30 ,,	0·05	102·0	92
10	Feb. 5 ,,	0·05	102·4	90
11	,, 6 ,,	0·063	98·8	82
12	,, 7 ,,	0·075	99·8	82
13	,, 8 ,,	0·1	98·8	86
14	,, 12 ,,	0·2	98·8	86
15	,, 14 ,,	0·35	98·4	80
16	,, 18 ,,	0·6	97·2	76
17	,, 20 ,,	0·7	98·2	80
18	,, 22 ,,	0·68	97·4	78
19	,, 24 ,,	0·2	97·0	80
20	,, 26 ,,	0·3	100·0	94
21	,, 28 ,,	0·15	97·4	80
22	March 2 ,,	0·3	97·2	74
23	,, 3 ,,	0·4	98·0	80
24	,, 4 ,,	0·5	98·6	80
25	,, 6 ,,	0·6	97·6	78
26	,, 9 ,,	0·25	97·2	80
27	,, 13 ,,	0·3	..	..

Note.—On Dec. 30th, 1890, the maximum respiration was 13.

It will be noticed that the amount injected was at the commencement much less than the initial doses frequently used in Berlin, where 1 centigramme was a common injection to begin with in facial lupus. The result, I consider, shows that 0·001 milligramme was quite sufficient, and a safer dose than the heroic 1 centigramme for my patient. The temperature after the first injections rose to 103° or a little over, which may seem a trivial rise to those who have seen temperatures of 106° and higher after initial injections. But the temperature is not the only or principal feature of a reaction. This patient was very much affected in various ways by the early injections, though his temperature was not excessive. He had severe rigors and headache, and his face was greatly swollen; he could not open his eyes, and breathing through the nostrils was almost impossible; his left upper lip became so swollen as to render the taking of food very difficult; he was very heavy and drowsy and became very deaf, this last being an effect which I have never known to occur in other cases, but which regularly recurred in this patient after many injections, passing off in a day or two. That the patient was profoundly affected, and quite sufficiently so, and that the injection was sufficient when it produced such effects, will, I think, be the general opinion. Indeed, as a result of my own experience with this and several other cases, I would strongly dissuade the administration of large initial doses. When the extent of the patient's general reactive character has been ascertained by careful trial, and after it has been ascertained where local reactions will occur, then the injections may be increased. But if there were no other grounds for caution at the commencement, the fact that most serious local reactions have occurred where utterly unexpected—e.g., in the larynx—and even necessitating tracheotomy, should be a warning. Further, no one can foretell to what extent the temperature, pulse, and respiration may increase, until after trial, and no one should risk, especially without any reason for doing so, the tremendous over-action of the heart (up to 180 beats) and lungs which may be brought on after an injection, even of moderately large quantities of tuberculin. One should always advance slowly and cautiously in the administration of this powerful remedy. I would further add that there are no grounds for supposing that there is any advantage gained, so far as the cure of the local disease is concerned, by inducing such alarming general reaction as is indicated by extremely high temperature, pulse, &c.; and it is certain that the general depression which ensues lowers the local as well as the general vitality, and thus delays, if it does not prevent, ultimate cure. The patient had no serious symptoms throughout. He took nourishment well at all times, and his bowels and kidneys acted well. The quantity of urine passed was normally low; during treatment it once amounted to 56 fl. oz, this being the only occasion when it exceeded 43 oz, the average being about 30 oz. When the temperatures were high at the beginning of the treatment there was at times a considerable deposit of urates (sedimentum lateritium), and sometimes there was a cloud of excessive phosphates. The effect of the very first injection was to cause the dark-red edge of the right nostril to ulcerate, the raw surface extending for a couple of weeks, when it began to heal. After the third injection the spots on the right lid and near the mouth were deeply excavated and suppurating. After the ninth injection the extensive scabs which covered the left side of the nose and left upper lip had fallen off, and the ulcerated lip and nostril were healed—that is, in one calendar month and one day from the commencement. There was never any serious local reaction after this date. The nose continued to become redder after the injections for some time, but there was no swelling of any consequence. Sometimes he had pains in the limbs for a few hours. After the tenth injection his left moustache, which was kept cut to prevent scabs gathering, ceased to grow, every hair fell out, and for a month the left upper lip was perfectly denuded of hair, and had all the appearance, even when seen under a lens, of being permanently depilated. However, the hairs began to grow well before he left the Home. The patient was allowed to go out for exercise after three weeks, although the weather was cold; and whenever it was dry he took walks of several miles, at first on the days between the injections, provided temperature, pulse, and other symptoms of general and local reaction permitted; later on he went out on the day of the injection also. The appearance of his face on leaving was greatly improved. There was no scab or raw spot anywhere. His nose had entirely lost the characteristic redness, but also a portion of the tip and of each side of the nostril. The loss of substance, however, was very trivial; the tip was round and smooth and soft to the touch; the two sides were also soft, and the whole was covered with a skin of perfectly normal appearance, colour, and feel. There was no hardness to the touch in either eyelid. The spot near the lip was white and somewhat depressed, like a scar left after excision, as was the spot under the right eye. The left upper lip is very much smaller than at first, and is hardly larger than the right. The patient had gained three pounds and a half in weight during treatment, and left the Home thoroughly happy and satisfied. He is particularly pleased that his nose is no longer so "hot and burning," and has not the unpleasant brawny feel which became evident every time he moved any of his features. No one seeing the patient now for the first time would, I believe, say he had lupus; every indication of that disease is gone. I do not feel qualified to assume the *rôle* of prophet and announce now what may be the patient's state in six months. But this much is undeniable: no known method of treatment would produce such excellent results except Koch's.

My own experience satisfies me that it is entirely erroneous to suppose that the administration of tuberculin ceases to be beneficial when it ceases to produce marked reactions, either general or local. The same has been the experience of others well qualified to judge. On the contrary, I have watched the rapid improvement of extreme local tubercular disease going on for weeks, while there was no sign of reaction to the injected tuberculin; and in the treatment of phthisis pulmonalis I have observed the same thing. I have made it a practice in the treatment of phthisis to avoid reaction as much as possible, and this I notice is now being done also by Guttmann and Ehrlich at Berlin, and others, who report excellent results. The guiding principle in Koch's method should be *arte non vi*, and the physician who would attain good results must not proceed on the routine practice of blindly injecting as much tuberculin as will produce the maximum of local and general reaction as the patient can bear without fatal results. The circumstances of each case must decide the details of the treatment; and each must be managed from day to day in accordance with the conditions to be treated as they present themselves. It is fatal to success in the following up of this method of treatment to be guided in the steps to be taken to-day by merely noting the quantity of tuberculin injected on the last occasion and the maximum temperature produced; yet it seems to be the general opinion that this is all that need be attended to. Such a practice can only lead to a blind, unintelligent routine, injurious to the patient, to the method of Koch, so promising in brilliant

results, and calculated to sterilise the observing powers of the practitioner.

Note.—The patient was shown to the Bradford Medical Society at the beginning of the treatment, and again on March 17th, when the treatment terminated.

THE ELECTRIC BATH.

By W. E. STEAVENSON, M.D.CANTAB., M.R.C.P.,
IN CHARGE OF THE ELECTRICAL DEPARTMENT, ST. BARTHOLOMEW'S HOSPITAL; PHYSICIAN TO THE GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN.

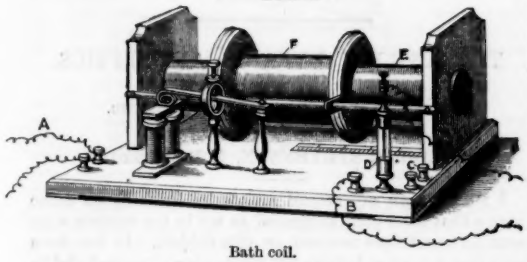
(Continued from page 711.)

WHEN the interrupted current is used for the electric bath the primary or the secondary coil may be employed. Special large faradaic coils are made for use with the bath. The strength of the primary coil can be regulated by the core of soft iron wires in its centre being withdrawn to reduce the strength of the current, or pushed in to increase its strength; or the extra current (the one which produces muscular contraction) can be regulated by a rheostat composed of resistance coils of known resistance or by a water rheostat (Fig. 4). The current from the secondary coil can

FIG. 4.

be regulated by the amount of the coil that is allowed to encircle the primary one. It is always best in the faradaic apparatus to have the secondary coil after the Du Bois-Reymond principle—that is, perfectly distinct from the primary coil and capable of being moved over it. (See F, Fig. 5.)

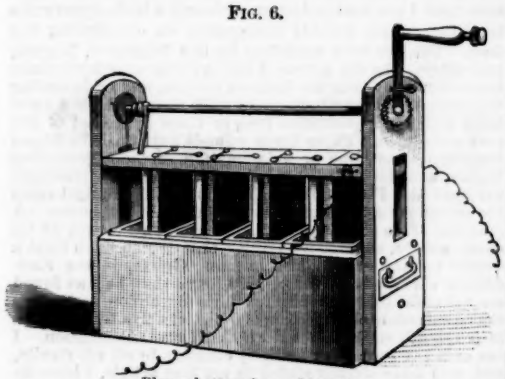
FIG. 5.



Bath coil.

The galvano-faradaic bath.—Treatment by the combined current—constant and interrupted—can be best accomplished by means of a water bath. The two currents can

FIG. 6.



Plunge battery for working coil.

be passed along the same wire, the secondary current (faradaic) passing through the constant current battery and galvanometer without affecting them, and both currents can be felt in the bath. The constant current battery, giving a current strength of 200 milliampères, can be employed at the same time that a strong secondary current is being given by a coil worked by another four-celled battery.

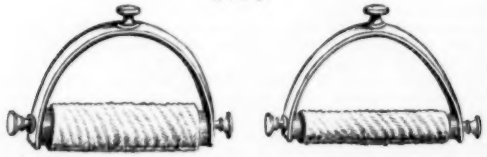
Hot air or vapour electric bath.—It is very common in America to apply electricity to a patient when in a hot air or vapour bath. This form of application is said to possess certain therapeutical advantages. Patients who suffer depression, and are in other ways unable to take the water electric bath, can often bear, and derive great benefit from, the dry hot air or vapour electric bath. The bath is given in a cabinet constructed for the purpose. There is a stool, on which the patient is seated, connected with one pole of the battery. The other pole of the battery can be connected either with the floor of the cabinet, which is lined with zinc, or with special electrodes to be applied to different parts of the body. The cabinet contains a hot water coil, which is connected with a boiler and heating apparatus outside. The condensed steam can be allowed to escape on the outside, or can be admitted into the cabinet by a valve, which opens downwards to prevent the jet of steam playing directly on the patient when seated on the stool. The coil can, therefore, be used for giving a hot air bath or for giving a vapour bath. The hot air is used at a temperature of from 90° to 100° F. It produces perspiration, and is used for chronic rheumatism, stiffness of the joints, and skin diseases. It is also used at a higher temperature when employed for internal congestions. The vapour electric bath cannot be borne at such a high temperature or for so long a time as the hot air; 106° to 110° is the usual limit, but the hot air can be borne up to 130°. The stool is raised or lowered so that the patient's head may protrude through a hole in the lid of the cabinet, and the neck is surrounded by dry warm towels to prevent the escape of hot air or steam. There are two holes, protected by valves, in the side or door of the cabinet, through which the medical man can pass his hands for the purpose of adjusting the electrodes to that part of the patient's body it is wished to treat. There is often a projecting metal arm, with the end covered by sponge, against which the patient's back or epigastrium can be placed. This projecting arm is fixed to the back or side of the cabinet, and connected with one of the poles of the battery. A hot air or vapour electric bath occupies fifteen or twenty minutes. At the conclusion the patient should be cooled down by a shower bath. A common watering pot may be used for this purpose. A drain pipe is connected with the bottom of the bath to carry off the moisture. Although the patient is enveloped with hot air or vapour the electricity can only be conveyed by contact of the electrodes. A series of experiments were made at St. Bartholomew's Hospital some years ago to see if electricity could be conducted by spray. Pure water and salt-and-water were used, and forced out of a metal nozzle connected with one pole of a battery; the jet was directed on to a metal receiver connected with the other pole, and a delicate galvanometer included in what would have been the circuit had the vapour conducted any electricity, but deflection of the needle could not be produced. A hot air or vapour electric bath is therefore nothing more than the application of electricity to a patient, whose skin is rendered a better conductor through the warmth and perspiration that are induced. The skin is softened and the capillaries filled. The vapour electric bath is more relaxing and soothing than the hot-air bath.

Electricity can be conveyed by drops of water, and is the means by which the electrical condition of the atmosphere is gauged; but as far as medical apparatus is concerned, we have not been able to detect the conveyance of electricity by steam. And it would certainly appear that no current of sufficient strength to effect the human body therapeutically can be conveyed by this means.

Chronic rheumatoid arthritis.—The affection for which the continuous current electric bath is most useful is chronic rheumatoid arthritis, a most obstinate complaint that usually resists all forms of treatment. Electric baths will not cure inveterate cases, but will arrest the progress of the disease, somewhat reduce the pain and swelling of the joints, and otherwise produce some amelioration in the symptoms. The tendency of the disease is almost always from bad to worse, but in the worst cases persistent treatment with the electric bath and passive movements may result in some improvement. When the stress of the complaint has fallen on the hands, and they have become distorted and useless, besides the plates already described

as used for electrodes in the bath, a series of metal handles of different sizes, covered with house flannel, have been employed. (Fig. 7.) The hands have gradually opened out. Small handles are used at first, and gradually increased in size as the patient's hand is able to receive them. The handles are attached to the negative pole of the battery instead of the foot plate. The current then enters the body at the spine, and leaves it by the hand which grasps the handle, and is thus more localised. But this local application of the current should only be used for about the last five minutes of the bath; it should never altogether take the place of the general bath, which probably influences the

FIG. 7.



whole system. The hands may also be made to grasp a metal bar supported across the bath and covered with house flannel,[1] and attached to one pole of the battery. In this position the hands are raised out of the water and probably get more of the current, but the entire current flowing through the battery must be very greatly reduced. When concentrated in this manner on the hands the patient cannot bear more than ten or twelve milliampères. When any of these changes in the direction of the current are made the strength has to be previously reduced to zero, and then increased again after the change has been made. If the wire were detached from the plate at the bottom of the bath when the full strength of 200 milliampères was passing, the patient would receive a very unpleasant and severe shock.

On looking back after the completion of a course of baths to the condition of the patient before the treatment was commenced, it is generally possible to notice some improvement. A patient, for instance, who could only rise from one step to the next, on going upstairs, by pulling on the balustrade, can make the ascent without such assistance; or a woman who could not hold her needle finds that she is able to use it slowly. The theory that the origin of chronic rheumatoid arthritis in many women may be through reflex action consequent upon the irritation of the spinal cord by prolonged congestion and inflammation of the pelvic organs is somewhat strengthened by the fact that the sedative action of the positive pole on the spinal marrow appears to be followed by some alleviation of the symptoms. The chances of this theory being probably a correct one led to the adoption of the use of the positive pole at the head of the bath. The rheumatoid condition is frequently associated with catarrhal endometritis. The question arises as to the relation they bear to each other as cause and effect. The superiority of the results claimed for the treatment of these pelvic troubles by electricity, in which the negative pole is applied to the uterus and the positive to the lower dorsal vertebræ, may also partly be due to the sedative action of the positive pole on the spinal cord.

Rheumatic arthritis of hip-, knee-, or shoulder-joints.—When the larger joints are affected with rheumatic arthritis, such as the knees, hips, or shoulders, the current can be localised by the use of the smaller metal plates (Fig. 2, p. 710), one being placed on either side of the bath, so as to include the affected joints between them. The joints should be afterwards subjected to rubbing and passive movements. Local arm baths or foot baths are sometimes given when one limb or joint only is affected. A porcelain or small wooden bath is the best to employ, and two small metal plates attached to the respective poles of a battery are placed one on either side of the affected member and a current allowed to pass. Sometimes one electrode only is in the water; the other—a carbon disc electrode attached to the negative pole—being applied to the affected joint or limb; for instance, to a rheumatic knee or to the arm in a case of cervico-brachial neuralgia. But ordinary galvanising without the intervention of a bath seems to be more suitable for these localised affections, and does not occupy nearly so long a time or so exhaust the battery.

[1] Vide Ross, Diseases of the Nervous System, vol. i., p. 326.

Gonorrhœal rheumatism.—This affection has also been treated by electric baths on the same plan as that followed in the treatment of rheumatoid arthritis, but not with quite such satisfactory results. The positive pole is placed at the head of the bath, on the supposition that urethral irritation reflected on to the spinal cord may be one of the factors influencing the incidence of the disease. It is advisable to employ massage for the affected limbs after the bath.

Gout.—The galvanic bath is said to be efficacious in gout. It helps to effect that much-to-be-desired metabolisis mentioned by Professor Latham—viz., the conversion of uric acid into urea. In a recent paper on the formation of uric acid Dr. Latham has sought to prove that the presence of uric acid in the blood is due to the imperfect metabolism of glycocine, which takes place under certain conditions, one being an insufficient amount of exercise. When a proper amount of exercise is taken the glycocine is transformed into urea and normally eliminated by the kidneys. He has also sought to prove that this more-to-be-desired metabolisis is dependent upon a due amount of nerve force, and that the production of nerve force is encouraged by exercise. It has also been proved that the contraction of muscle produces electrical currents. Urea is due to the oxidation of uric acid, and Professor Dewar of Cambridge has produced urea from uric acid by making and breaking a current of electricity when passing through it. Professor Dewar has also experimented upon the electrolysis of urea. In referring to this experiment Dr. Latham makes the interesting remark that "if there be any correspondence at all between nerve force and the electrical current this experiment possesses great significance." From the beneficial effects of the treatment of gout by the electric bath these surmises and observations receive support. The tophi in gout are composed of urate of soda, and are removed by galvanism, most likely by a process akin to electrolysis, the urate being split up at the negative pole.

Lehr says that in gout the electric bath is a palliative of great value.[2]

(To be continued.)

THE ANILINE DYES AS ANTISEPTICS.

BY J. STILLING, M.D.,
PROFESSOR IN THE UNIVERSITY OF STRASSBURG.

Translated and much condensed
BY EDGAR STEVENSON, M.B. ABERDEEN.

I MUST begin my second article by touching on some points that have been suggested to me in the various communications I have received on this subject. It has been said that irritation follows the application of methyl violet. I have myself never seen irritation follow the application of a 1 in 1000 solution of methyl violet in animals, or in men, though I have treated hundreds of patients with it. I have even used 1 per cent. solutions with only a little hyperæmia resulting, which quickly disappeared on diminishing the dose. This has been confirmed by Drs. Wanscher, Nagues, and others. In the course of my experiments I have made large skin wounds in the backs of rabbits, and by loosening the connective tissue have produced a cavity which I have filled with large quantities (two or three grammes) of the pure substance. These large wounds have healed without the slightest swelling or inflammation in the surrounding tissues, and the general condition of the animals remained unimpaired. For external application in all surgical cases the substance can be regarded as quite non-poisonous. A gramme of an aniline dye is, however, on account of its small weight, so large a quantity that it suffices to treat a wound or ulcer of considerable size. Graefe, in the *Fortschritte der Medicin*, June, 1890, says that he has found methyl violet to have a local inflammatory action, so much so that a subcutaneous injection of 0·3 cc. of a 2 in 1000 solution in a rabbit's ear has caused an obstinate inflammation. I can only say that this is entirely contrary to all my results, and, as I have already stated in my first article, I have injected large quantities of the dye into the peritoneal cavity of animals without the least sign of inflammation. These

[2] Erb's Electrotherapeutics, translated by De Watteville, p. 281.

results of mine have been fully confirmed by the investigations of Wanscher, Bresgen, and others. Graefe's results are probably due to impurities in the dye, such as chloride of zinc, arsenic, and copper sulphate. The results of my experiments briefly stated are as follows:—1. Methyl violet is about three times as strong as sublimate in its action on the anthrax bacillus, and quite as effectual as sublimate in its action on the staphylococcus pyogenes aureus. 2. It is a perfectly non-poisonous substance. 3. In consequence of this, it is immaterial how strong the solutions may be, even up to the use of the pure substance itself. 4. It does not coagulate egg albumen. 5. It possesses an extraordinary power of diffusion, penetrating in the eye like atropin.

In its action on the normal and pathological states of the cornea the following may be noticed: The normal cornea is only stained if it be scratched and the substance immediately applied, whilst the diseased cornea is very quickly and deeply stained. The more recent the corneitis, the longer the stain lasts, and the larger the quantity of the dye deposited from the solution; the staining can then be observed to gradually fade after a few minutes, and this warrants a favourable prognosis, the opposite to this being an unfavourable sign. Granulations of the conjunctiva are also easily and deeply stained, whilst the normal conjunctiva, in spite of the superficial layer of cast-off cells, is by no means so deeply stained as the granulations. Blepharitis is quickly cured by the application of a 2 per cent. ointment or of a pencil to the roots of the hairs. It is better in these cases to use the yellow dye—auramin,—on account of the slight stain produced by it. Since I began to use the aniline treatment I have generally cured bad cases of blepharitis in a few days.

As regards conjunctivitis I have had the very best results in even the worst forms of the disease by using drops of a 1 in 1000 solution of methyl violet, or by sprinkling with a 2 per cent. yellow or blue powder. This treatment will practically cure a case in twenty-four hours. I have also had good results in blennorrhœa, croupous conjunctivitis, and iritis serosa; for keratitis parenchymatosa the methyl violet solution is almost a specific. Dr. Wanscher of Copenhagen has obtained excellent results in blennorrhœal and gonorrhœal ophthalmia by pencilling the conjunctiva several times a day till the tissue was quite blue. In cases of ordinary acute, subacute, and chronic conjunctivitis I have so far obtained better results with auramin solution of 1 in 1000 strength than with the other substances. The patients also prefer it, as they invariably say that it has a very pleasant, cooling action. Very severe cases of granular lids are not often seen here, but in the milder cases I find the application of the pencil to the granulations quite sufficient. With this treatment there are the advantages that the application is not painful, as is the case with nitrate of silver or sulphate of copper, and also that a cure is more speedily effected.

I might here mention that my friend, Professor Goltz, informs me that purulent inflammation of the cornea going on to perforation and destruction of the eye frequently occurs in dogs after operations on the cerebrum. This inflammation he has succeeded in curing in a few days by at once applying the 1 in 1000 methyl violet solution. As regards the use of methyl violet in ordinary surgical practice, I have received communications from surgeons from all parts of the Continent, saying that they have been most successful in the aniline treatment of ulcers, abscesses, burns, &c., and also of wounds, all suppuration being prevented. The substance must be used till the tissues are deeply stained. I quote one such communication from Dr. Voigt.[1] He says that "the very best results have followed the use of the pure powder, which is easily applied with a brush, especially in acute suppuration, such as carbuncle, whitlow, phlegmon, &c., the pain and suppuration being simultaneously stopped. One need not, if it be necessary, hesitate to make deep incisions in order to bring the substance into thorough contact with the diseased parts. The blue zone can be traced for ½ to 2 mm. deep in the tissues.

The following are the preparations of the dyes:—

1. *Pure methyl violet.*—To be used as powder for large wounds and ulcers.

2. *Large pencils.*—For small wounds, burns, &c. For purulent cases the blue pencil is better than the yellow, on account of its greater antiseptic property.

3. *Small pencils.*—For application to the eye, in cases of corneal ulcer &c.

4. *Powders.*—Of 1 in 1000 strength for mild cases of conjunctivitis, and for more severe cases (blennorrhœa) of 2 per cent. strength. These can also be used as a snuff in affections of the nasal mucous membrane.

5. *Ointments.*—In strength varying from 2 per cent. to 1 in 10.

6. *Solutions.*—Used in strengths of 1 in 1000 to 1 per cent. The 1 in 1000 solution is to be used for ordinary cases of conjunctivitis, keratitis, &c., and in non-purulent cases the yellow dye auramin may be used, on account of its above-mentioned cooling properties. The solutions should be filtered and kept in dark glass bottles, and changed every eight days.

In conclusion, I must once more call attention to the necessity of the substances used being absolutely pure.

Strassburg.

[1] Aerztl. Centr. Anz., 1890, No. 25.

THE BULBAR CRISES OF DIPHTHERITIC PARALYSIS OCCURRING IN CHILDREN.

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THE object of this paper is to describe symptoms of diphtheritic paralysis which are often unexpected, which may often be unrecognised, and which often prove fatal. The symptoms to which I refer may be described as "bulbar crises." They consist in sudden and severe functional disturbances of the vital medullary centres. They resemble in some respects the symptoms of so-called acute bulbar palsy, and it is possible that some cases of the latter disease may be of unsuspected diphtheritic origin.[1] I shall presently describe them fully; but, first, as to the conditions under which they occur.

The premonitory symptoms of bulbar crises are as follows. Children are usually seen in the second or third week of diphtheritic paralysis. They are then suffering from slight weakness of the legs and loss of knee-jerks, staggering gait, a nasal voice, occasional regurgitation of fluids through the nose, and sometimes a "squint." The common reason for bringing them is that they "fall about," seem weak, and "want strengthening medicine." The other symptoms are seldom elicited except on cross-examination. Sometimes, however, children are brought because their speech has lately become defective. The initial sore-throat is seldom mentioned, sometimes it is denied.[2] They are often well nourished and healthy looking. They take food well, except for the occasional return of fluids; they sleep well, and there may seem little cause for anxiety as to their condition. Yet a closer examination will often give grounds for alarm. There is a peculiar apathy and lethargy about the patient which is very characteristic. He will lie all day on his back without attempting to move. He will smile placidly when spoken to, but will not answer unless pressed to do so. Then, speech is attended by obvious effort. A deep, sudden inspiration is taken. The voice escapes in sudden expiratory gasps; it is not only nasal, but also extremely weak and hoarse. The weakness and hoarseness suggest incomplete closure of the vocal cords (adductor paralysis); so also does the occasional loose and almost noiseless cough. More probably, however, there is a certain amount of bilateral paresis of the cords.[3] The character of the respirations often affords indications of danger. They are not usually hurried. They average about 20 per minute, but inspiration is sudden, deep, and forcible, whilst expiration is short and weak. At intervals there is a long-drawn sigh. This sign is almost invariably present, and is highly significant of an approaching crisis. At

[1] Cf. Dr. Stretch Dowse, Med. Soc. Trans., Jan. 29th, 1877: "Extreme voraciousness distinguishes ordinary bulbar paralysis from the bulbar paralysis of diphtheria."

[2] It may be objected that in these cases there is no evidence that the disease is diphtheritic. A similar objection might be raised to the diagnosis of well-marked tertiary syphilis, where no history of chancre can be obtained.

[3] The inspiratory stridor so common after tracheotomy is seldom noticed, except when this operation has been performed.

the same time mucus begins to collect in the throat, and a few moist râles may be heard in the chest. This is also a grave sign. The diaphragm may not act, or its action may be irregular; in either case, the dyspnœa is much more noticeable. The character of the pulse is also important. Abnormal infrequency of the beat has been noticed in cases of diphtheritic paralysis by other observers, and is usually said to be due to irritation of the pneumogastrics. None of the cases observed by myself have had an abnormally slow pulse, and whilst the pulse remains between 70 and 90 there is no immediate danger. On the other hand, a rapid but not necessarily irregular pulse (120 to 130) has been constant in all cases which have developed dangerous symptoms. Intermittency of beat is often present. Its chief importance, however, is that it may mark the increased frequency. Irregularity is not constant; in some of the worst cases the pulse has been regular and of good volume (at first), in spite of the marked rapidity. It is obvious that a pulse of 120 to 130 occurring in a child over two years of age, lying absolutely at rest, without rise of temperature or physical signs which may explain the symptom, is a grave condition.[4] As regards the heart sounds, murmurs probably of hæmic origin are sometimes present, and the first sound may be weak. There may be slight irregularity, but it is by no means constant. Where albuminuria has existed during the initial disease, it sometimes persists throughout, but it is commonly absent in the paralytic condition. The temperature is usually normal, or between 99° and 100° F. at the highest.

It is in children presenting the above symptoms—viz., (1) marked listlessness and apathy; (2) a weak, hoarse, and nasal voice; (3) irregular and sighing respiration; (4) a loose, weak, and almost noiseless cough, with commencing accumulation of mucus in the throat and air passages; (5) a rapid pulse, together with the other minor signs of diphtheritic paralysis—that bulbar crises are apt to occur. Such crises are sudden, acute exacerbations of the symptoms which prevailed before. Their exciting cause may be a fit of passion or other emotion, sometimes a physical exertion; sometimes they occur spontaneously. During a crisis, instead of the occasional dysphagia which existed before there is complete and sudden paralysis of deglutition. Instead of moderate dysphonia there is complete aphonia. Instead of slightly embarrassed respiration there is the most alarming dyspnœa. Instead of lethargy there is extreme restlessness. The head is thrown back; the alæ nasi work; the mouth is open; the pupils are dilated, and the face becomes bluish, or pallid and sweating. Inspiration is even more sudden, forcible, and gasping than before. Expiration is also much feebler, whilst the sighing and irregularity increase. The diaphragm is often paralysed. Mucus accumulates in the fauces and trickles through the nose and half-opened mouth. Loud moist râles are audible all over the chest. These are due to hypersecretion into the air passages, large and small, and this condition might be, and it is probable that it often is, mistaken for an ordinary attack of capillary bronchitis. The temperature rises suddenly to 102° or 103°; the pulse-rate increases to 140 or 150, or even so high as to be uncountable. There is no loss of consciousness, and the child, though unable to speak, points to its larynx or epigastrium when asked if in pain. This suggests a parallel with the gastric crises of locomotor ataxy, the other symptoms of which—extreme rapidity of the pulse and violent vomiting—render the comparison still more complete. For the next constant and characteristic symptom of a bulbar crisis is copious vomiting of greenish-brown frothy liquid. The dyspnœa often seems to be relieved by the vomiting, and the crisis is thereby ended. The patient lies exhausted, and seems at the point of death, but death seldom occurs during a first attack. Colour, pulse, and respiration gradually improve, power to swallow is restored, and for the time danger is over. Within a few minutes or a few hours, however, similar attacks recur, during which, or after which, death may happen from exhaustion, syncope, cardiac thrombosis, or absolutely from suffocation due to the accumulation of mucus in the air passages. Besides suddenness of onset, therefore, tendency to subside and to recur is a marked feature of these crises; their duration varies from a few minutes to a few hours. They kill according to their severity and continuance, and according to the degree of the patient's exhaustion. After a period of about forty-eight hours they cease to recur, and if the patient survives through this time he usually recovers. They may be expected at any time during the first six weeks from the onset of the paralytic symptoms. I have not seen them occur later.

(To be concluded.)

[4] This pulse-rate without rise of temperature indicates paralysis of the inhibitory action of the vagus.—Dr. Lauder Brunton.

THE REMOVAL OF GALL-STONES BY ETHER SOLUTION.

BY JOHN W. WALKER, M.R.C.S.ENG., L.R.C.P.LOND.,
SURGEON TO THE CLAYTON HOSPITAL, WAKEFIELD.

ON March 7th, 1890, I was called to see H. V——, a married woman, aged twenty-seven. I found that since the age of nine she had suffered from pain in the body coming on at irregular intervals, but getting gradually more and more severe. These attacks were always put down to indigestion. About four years ago my father, Mr. T. Walker, first saw her, and came to the conclusion that the pain was caused by gall-stones. Since that time she has had several attacks; but the one to which I was called was the most severe ever experienced. Jaundice, with the usual concomitant symptoms, soon supervened. On the third day my brother, Mr. H. S. Walker of Leeds, saw her for me, and was able to push the stone forward into the bowel by digital manipulation, giving instant relief, and the stone was found in the fæces the following day; two days later the pain returned, and I could distinctly feel another stone through the thin abdominal wall, but was not able to push it into the bowel, although I managed to drive it back into the gall-bladder, giving relief to the patient, who felt it pass on. Seven days later I was again summoned to her aid, and though I could feel a stone in the duct I could not move it either way. Morphia was given hypodermically in large and increasing doses, but on March 26th, as the patient was getting worn out with the continuous suffering, and I could not detect any change in the position of the stone, I determined to perform cholecystotomy. For this purpose the patient was removed to the Clayton Hospital, where, on the afternoon of the 27th, assisted by Messrs. T. Walker and W. Stanger, my colleagues, I cut down upon the gall-bladder, making a vertical incision over the fundus. The viscus sought for, though not much distended, was easily brought into view, and on introducing two fingers into the abdominal cavity I could feel several stones within the bladder, and one just within the cystic duct. On making an incision into the gall-bladder and introducing a finger, I was able to remove several stones, and at last came upon the one which had given rise to the trouble, embedded in the cystic duct, about one-quarter of an inch from its vesical end. I endeavoured to push this into the gall-bladder with my fingers inside the abdomen, and pressing along the duct, but was unable to move it; taking a Volckmann's small sharp spoon I passed it on to the stone within the duct, and with my finger tip against the stone succeeded in cutting it in two, the halves being removed by a little manipulation, as also another small stone which was found beyond it. Altogether twenty-seven stones, varying in size from a horse-bean to a mustard seed, were removed. The edges of the gall-bladder were sutured to the parietal wound, a rubber drainage-tube inserted into the bladder, and absorbent dressings applied. The temperature on the 28th was 100° during the day, but fell to 98·6° at 10 P.M., after which it remained normal throughout. On the 29th vomiting was very troublesome, a greenish fluid being rejected; in the evening I removed the drainage-tube, thinking that by irritation it might be keeping up the sickness. After this the vomiting ceased, and convalescence advanced uninterruptedly. On leaving the hospital the wound looked perfectly healthy, but was not closed, a fluid resembling raw white of egg being daily discharged through it, no doubt the secretion from the gall-bladder itself. The patient went to Scarborough, and after remaining there a month returned home feeling quite strong, the fistula, however, remaining. She continued perfectly well and free from pain until four days after a miscarriage

on Oct. 1st (being then at the end of the second month of pregnancy), when severe abdominal pain came on, caused by another stone trying to pass along the cystic duct; there was no jaundice. The stone could be felt by a probe passed through the fistula into the duct, and appeared to be about the size of a split pea. I endeavoured to extract it with forceps, but failed to do so. I then washed out the gall-bladder with a warm boric solution, and having drawn one drachm of a mixture of equal parts of ether and glycerine into a small glass tube attached to a syringe, passed the tube directly on to the stone, which I could distinctly feel, and injected on to it the ether glycerine, drop by drop. This gave rise to a burning sensation for some time, and the patient felt very exhausted during the remainder of the day, but the pain gradually lessened, and on the second day later I carefully examined the gall-bladder and duct with a probe, but could not feel any stone, and the patient has been absolutely free from pain since.

I believe that the stone which gave rise to this last attack must have passed on towards the gall-bladder at some period ulterior to the operation, as I very carefully washed out that viscus with boric solution at the time and could not feel anything left behind. I do not know whether the plan of dissolving stones *in situ* has been before attempted by injecting ether on to them, as in this case; if the wound had closed it could not easily have been undertaken. I injected the ether very slowly, and there was sufficient space by the side of the glass tube for any vapour to escape; no bad symptoms followed the injection.

Wakefield.

THE TRAINING OF THE MEDICAL STUDENT IN MIDWIFERY.

BY ROBERT REID RENTOUL, M.D., M.R.C.S.

THAT the present system of training the medical student in midwifery is sadly deficient few practical persons will deny. The fact that some old midwives go about boasting they train "the young doctors in midwifery" is a cruel, but unfortunately true, statement. The fact that pupil midwives repeat they are better trained than students sounds strange. The pupil midwife in Glasgow has to prove that she has attended thirty cases of labour before being certificated; and the pupil presenting herself before the Obstetrical Society must show she has attended twenty-five labours. What to-day are the requirements of the medical student? The eighteenth recommendation of the General Council of Medical Education to the examining bodies under the Medical Act, and which is a standing disgrace to our profession, runs thus: "Every student should be required to attend for three months the in-door practice of a lying-in hospital; *or to have been present* at not less than twelve confinements, at least three of which he should have conducted personally *under the direct supervision of a registered practitioner.*" Three confinements! This is the recommendation of an Educational Council which is given almost supreme power by Act of Parliament in the matter of education. The above recommendation is dated May 26th, 1888. Previous to this (in 1886) the Council of Medical Education fixed the number of cases at six. I would call attention to the words, "have been present at," in the above recommendation. They mean that the student may just have looked in at the case and then left, or that he may have been "taught" his midwifery by a midwife,—or, in fact, that he may have bungled along with the case as he well may. Thus forsooth is he "taught" his practical midwifery.

The following table shows that there is a very grave diversity in the manner of teaching midwifery, and of the requirements demanded by the various bodies which grant registrable medical qualifications under the Medical Act:—

Name of examining body.	Lectures on midwifery and diseases of women and of children.	Clinical instruction on diseases of women.	Number of labours.
Royal Colleges of Physicians and Surgeons of England	3 months	3 months and	20
Society of Apothecaries, London	3 ,,	3 ,, ,,	20
University of London	1 course	0 ,, ,,	20
,, of Oxford	0 ,,	0 ,, ,,	0
,, of Cambridge	1 ,,	0 ,, ,,	20
,, of Durham	3 months	3 ,, ,,	20
Victoria University	6 ,,	3 ,, ,,	20
Royal College of Surgeons and Apothecaries' Hall, Ireland	6 ,,	6 ,, ,,	30
Royal College of Physicians and Surgeons, Ireland	6 ,,	6 ,, ,,	30
University of Dublin	6 ,,	6 ,,	Not stated
Royal University of Ireland	6 ,,	6 ,, ,,	20
Royal Coll. of Phys. and Surgs., Edin., and Fac. of Phys. and Surgs., Glasgow	3 ,,	0 ,, ,,	6
University of Edinburgh	6 ,,	3 ,, ,,	6
,, of Glasgow	6 ,,	3 ,, or	12
,, of Aberdeen	3 ,,	3 ,, ,,	6
,, of St. Andrews	3 ,,	3 ,, ,,	6

The Scotch Examining Bodies seem to be the most lax. Indeed, they ignore the Recommendation of the Medical Council. I believe the Scotch representatives on the Council say they have not a sufficient number of cases to allow them to give a better training to their students. I fail, however, to see why the Scotch representatives on the Council should keep back the hands of medical education. If the Scotch student cannot be thoroughly trained in midwifery, then he should go elsewhere. No one expects small towns like St. Andrews to be ever able to supply a sufficient number of lying-in cases. Why, therefore, should the remaining bodies wait for St. Andrews? It is to be hoped that the new arrangements made at the Maternity Hospital in Glasgow will give the necessary number of cases. One fails to see why the pupil midwife is made to attend thirty cases in Glasgow while the medical student attends twelve. Is his midwifery education to be slowly strangled so as to make room for the midwife? Nor do the Scotch examining bodies appear to neutralise their small demand for practical instruction by making the student attend a longer course of lectures or clinical instruction. I think there are a sufficient number of lying-in cases in the large cities of Scotland, for I find that in 1889 eight medical charities gave relief to 4716 women in their confinements. Moreover, surely the hospitals under the Board of Supervision could be used, in so far as midwifery is concerned, for the teaching of the student. It is to be noticed also that the University of Oxford treats with absolute contempt the suggestion that aspirants for their degree should attend any lectures, clinical instruction, or labours; while Glasgow and other Scotch examining bodies allow the student to toss up as to whether he will attend the clinical instruction on diseases of women or look on at six labours. Verily ours is a splendid system of medical education in obstetrics! Is it to be wondered at that so many women die in childbed? Is it surprising that the young doctor is absolutely at sea if called upon to stitch a ruptured perineum; while, on the other hand, he waxes eloquent over the necessary incisions in tying the internal iliac, or first stage of the subclavian arteries? Or is it any wonder the high infant death-rate in this country is a disgrace to the medical profession? How many of the qualifying bodies demand any certificate from the student to show that he has received *any* clinical instruction in diseases of infants and children? Not one. The student is kept grinding at, and paying heavy fees for, attending lectures on anatomy and physiology, while his education in midwifery and diseases of women and infants is reduced to a dangerous minimum. Thus is the public protected. And if we go further, and inquire into another very practical portion of the future doctor's practice—viz., pharmacy,—we find this is equally reduced to a minimum. When it is remembered that the three months' lectures demanded by some examining bodies includes midwifery proper, puerperal dis-

cases, diseases of women, and diseases of infants, one questions how the student when qualified can possibly have any practical knowledge of these subjects. Dr. J. G. Glover, one of our five direct representatives on the Medical Council, has in his two pamphlets, "The Practical Element in Medical Education," and "The Gaps in Medical Education," called attention to the present lamentable defects in midwifery education; and at the last meeting of the Medical Council he proposed that each student should attend thirty cases of labour. This motion was rejected by only two votes. I would urge that the profession make this big question, of the more practical training of the medical student in midwifery, a living one. Let every practitioner write to our five direct representatives—viz., Mr. C. G. Wheelhouse, Dr. J. G. Glover, Sir W. B. Foster, Dr. W. Bruce, and Dr. Kidd, urging them to bring this question up at the May meeting of the Council. Would it be asking too much of the different obstetrical, gynæcological, and medical societies to discuss this question at their meetings, and to forward a resolution to the Medical Council praying that they give immediate attention to this question? The profession does not keep sufficiently in touch with the Medical Council. If we kept in mind that the Council is a Council of medical education with the power to appeal to the Privy Council, and with power to refuse to register degrees granted on insufficient knowledge, we should appreciate the enormous powers given by Act of Parliament to the Council. I would propose the following recommendation of the Council: "That each student before being admitted to his final examination be required to produce certificates to the examining body showing (*a*) that he has attended a six-months' course of lectures, including midwifery, puerperal diseases, diseases of women and of infants at a recognised hospital; (*b*) that he has *personally conducted* thirty cases of labour under the immediate supervision of a registered practitioner; (*c*) that he has attended for three months the clinical instruction on diseases of women and infants at a recognised hospital." I hope the Medical and Obstetrical Societies will agree to work for this, and request the Medical Council to adopt it. It may be argued that a six-months' course is too long. I would only say look at the wide range of subjects. Let us remember this most important fact, that the examining bodies cannot examine the student in practical midwifery and puerperal fevers. Recognising this, it is imperative that the instruction of the student while at College should be as perfect as possible. In Germany the student, when passing his *Staats Examen*, has to conduct a confinement, attend the woman and infant for nine days, and then write and send in a thesis on the case. In connexion with the thirty cases of labour, I would ask practitioners to remember that the student has now to study for at least five years, and that six months of the fifth year may be spent under the tuition of a medical practitioner recognised by the Council. This would give the senior student—free from attendance on dissections, necropsies, and fever hospital attendances—a good chance of learning his practical midwifery. In the near future, I trust each of our lying-in hospitals will have paid district medical officers, who will each have a senior pupil under their immediate charge.

I would here point out that if midwives are given the power to attend confinements now conducted by medical men and medical students in connexion with hospitals, in the future this would lead to the student receiving his training in practical midwifery *from the midwife*. He might as well obtain his training in surgery from a bone-setter, or his medical education from a herbalist.

Liverpool.

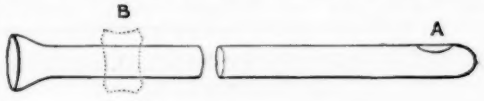
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

INTUBATION IN LARYNGEAL INFLAMMATIONS.

By HAROLD STALKARTT, M.B.

THE subject of this case was a traveller, aged fifty-two, suffering from marked dyspnœa, very much cyanosed and nearly asphyxiated, breathing with the greatest difficulty. Gouty habit, being attacked every spring. He was suddenly seized with a difficulty of breathing, which increased for five days before I saw him; he was then *in extremis*, and it was a question of immediate surgical interference. Intubation was chosen in preference to tracheotomy. I passed the forefinger of my left hand to the upper stratum and introduced a long tube through the larynx, some way down the trachea, which afforded instant relief. The cyanosis and anxious expression gradually passed off as breathing became re-established. A steam kettle containing compound tincture of benzoin was now set going, and a tent put up. The breathing continued to improve. The tube, which was of gum elastic material and fourteen inches long, was removed next day, and the patient recovered without a bad symptom. (See Fig.) The opening



A, Opening of tube. B, Movable reel.

in the side of the tube prevented blocking on introduction, and if placed so as to lie to one or other side has less chance of contact with the wall of the trachea, as the tube tends slightly to straighten itself in the antero-posterior direction. Its diameter is about a No. 16 catheter, and it may be fixed to the beard. There is a small wooden reel to be placed between the teeth, to prevent compression of the tube. Food enemata or a stomach tube may be used for feeding. I have used this in all cases of laryngitis and diphtheria requiring surgical interference with the greatest success. In cases where vomiting occurs under chloroform and obstruction of the air passages is seen, could not this be used? With leeching and fomentations locally and *natural* salicylate of soda the gouty symptoms abated, the patient being about again.

Kilburn, N.W.

TRAUMATIC CONTRACTION OF FINGERS TREATED DURING HYPNOSIS.

By GEORGE C. KINGSBURY, M.A., M.D.

T. H——, aged about thirty-six, consulted me on Nov. 28th, 1890. A year previously he cut the palm of his hand at the outer side, and since then his little finger had been gradually contracting, and latterly the ring finger had been following. The patient was hypnotised after a good deal of trouble, possibly due to the fact that he "did not believe in it." During hypnosis the fingers were forcibly extended, but not to the full, and absence of pain verbally suggested. A distinct cracking could be heard as the contracting bands yielded. The patient did his work next day as usual without any discomfort. Two days later he was again hypnotised, and the extension was completed. Immediately on going home he played his violin for two hours, just to test his fingers, the hand affected being his left. This test required their constant exercise, yet he felt no pain. He had not been able to finger his violin for nine months previously. On Dec. 3rd, 1890, the patient came to report that his hand remained all right, and there has been no tendency to relapse since. I have no doubt that this case, being traumatic, the fingers might have been extended under the influence of an ordinary anæsthetic; but, if they had been, the question arises, would the patient have been so free from after pain as to be able to fiddle for two hours immediately after the second extension? I do not say positively that any part of the result was due to hypnotic suggestion, but the influence of the mind upon the body is apt to be underestimated. Trousseau, Stokes, Graves, and others have pointed out that the mind alters not only the secretions, but modifies the nutrition of the organs. Whatever effect the mind may exert upon the body in the waking state seems to be greatly intensified during the hypnotic condition. One great advantage possessed apparently by hypnotic anæsthesia, where it can be induced, lies in the fact that (so far as I know) it has never had a death laid at its door; whereas the list of fatal accidents with chloroform and ether is constantly being increased. It is certain that hypnotism can never replace these agents in general surgery, for it is limited in its applicability; but I believe in a great number of cases demanding minor operations it would, if properly tried, be found quite as satisfactory and infinitely safer than the usual anæsthetics. Where it can be

applied, hypnotic anæsthesia will be found of great value in another direction; once induced, there is no further need for the hypnotist to devote himself to its maintenance, as in the case of chloroform; and, more than this, the patient will be able to obey instructions, such as to raise his arm or turn on his side, quite as intelligently as if in his normal state. Those who have frequently to operate with very limited assistance will appreciate these points.

Blackpool.

CASE OF NITRO-BENZOLE POISONING; RECOVERY.

By ALGERNON HODSON, M.R.C.S.

R. E——, aged forty-eight, registered chemist, had measured two drachms of nitro-benzole to scent some soap, and by some mistake drank it at 1 P.M. on March 11th, 1891. He then made a hearty dinner of beefsteak pie, and felt no ill effect from the poison except tasting and smelling almonds until 2.30. He then became giddy, and was advised to go home. He was able to walk home, a distance of about half a mile, feeling all the time as though intoxicated, being unable to control his legs or see clearly. On reaching home, about 3.15, he informed his daughter of having taken nitro-benzole by mistake. She went for a doctor, and in the meantime the patient became unconscious. Messrs. Dodd and Philips came, washed out the stomach, and got rid of the contents, consisting chiefly of lumps of meat, smelling very strongly of nitro-benzole, as did the breath and the whole atmosphere of the room. A hypodermic injection of ether was also given. He was then sent to the Hove Hospital. Condition on admission at 4 30 P.M.: Strong, well-nourished man; insensible, collapsed, extremely cyanosed, short and irregular breathing. Pulse hardly perceptible, 60. Pupils contracted, conjunctiva not insensible; no paralysis. Had defecated involuntarily. Stimulants administered and heat to extremities. At 6 P.M the breathing was quite regular; pulse 80; still extremely cyanosed; could open his eyes; looked vacantly if shouted at. Vomited twice. At 12 A.M. he was in the same condition. Micturated involuntarily. Temperature 99°. The next day the patient was much better; sensible, but still very cyanosed. Thirsty, and complained of stiffness and soreness over the whole body. The pupils still contracted; no headache; pulse 84; respiration 18. On the 13th the cyanosis was less marked and the pupils less contracted. Urine drawn off (36 oz.), very dark mahogany coloured, perfectly clear, no peculiar odour, specific gravity 1025. The condition continued to improve and the cyanosis to decrease until the 19th, when the man was discharged cured.

I am indebted to MR. C. M. Lewis, the house-surgeon, for obtaining the information and verifying it by inquiry. The interest in the case seems to be the recovery after so large a dose as two drachms being taken and allowed to remain in the stomach for over two hours, as there are several cases on record of very small doses proving fatal, and one case where eight or nine drops proved fatal (Letheby). Another point of interest was the intense cyanosis.

Brighton.

ACUTE INTESTINAL STRANGULATION DUE TO VOLVULUS IN A NEWLY BORN INFANT.

By G. NEWTON PITT.

AN infant came under the care of Mr. Lucas for complete obstruction, with a greatly distended abdomen, which was supposed to be due to an imperforate rectum. A left inguinal colotomy was performed, and the child died when two days old. The colon, rectum, and the lower two feet of the ileum were normal. The three feet of intestine above this were distended, black with engorged blood and acutely inflamed. There was a sharp line of demarcation from the healthy bowel above, but less sharp below. No trace of any band or of an intussusception could be found, and it was concluded that the acute strangulation was due to a volvulus, which readily untwisted. The only case on record of a volvulus in a newly born infant was reported by Mr. Harrison Cripps in Vol. xxxi. of the Transactions of the Pathological Society. In this case a Littré's operation was performed; the child died when three days old, and at the post-mortem inspection a volvulus of the ileum was found. The earliest case otherwise appears to be that of a child three years old referred to by Keating.

St. Thomas's-street, S.E.

PRIMARY MUMPS OF THE TESTICLE.

By T. F. RAVEN, M.R.C.S. &c.

A YOUNG man, exposed to the infection of mumps, complained of pain and swelling of the left testis on March 31st. On April 4th both parotid glands began to swell, and the affection of the testicle, which was not severe, subsided rapidly, and was gone by April 7th. Last August he had gonorrhœa, succeeded by gleet. On Nov. 10th he had a sharp attack of orchitis (right), and on December 25th a similar affection of the left testicle. Each of these attacks lasted for more than a fortnight; but for nearly three months, prior to the mumps, he had been quite well and able to take horse exercise frequently. I should imagine that the previous orchitis had rendered the testicle vulnerable, and that the virus effected an easier lodgment there than in the parotid glands. The mildness of the mumps, as compared with the previous inflammation of the testicles, may bear out the distinction drawn by Trousseau between mumps and parotitis. Mumps he regarded as engorgement (*fluxion*), but not inflammation of the gland.

Broadstairs.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASES OF INJURIES OF PERIPHERAL NERVES.

(Under the care of MR. HULKE.)

SUTURE of severed nerve trunks—immediate wherever circumstances admit; where these do not allow it, then secondary suture, unless the interval of time since the accident is so great as to remove all expectation of benefit—is a practice based on such wide experience of its usefulness, and of its freedom from those risks once thought to be attached to it, that its neglect must be regarded as a grave omission. Mr. Bowlby's work, published in 1890, is an excellent summary of this subject, regarded from a clinical and an operative standpoint, and should be read by all interested in this class of injuries. There will long remain, however, some matters respecting which additional information is greatly to be desired. To mention only two points: (*a*) What is the longest interval after division of a nerve when suturing may be tried with some expectation of success? (*b*) the condition as regards restoration of function or otherwise at so great an interval after suturing as to fairly represent the final outcome. As concerns hospital patients, they seldom remain long enough under the observation of the same surgeon; but wandering from one hospital to another, and leaving London for the country, they are early lost sight of, so that in many instances the final results are not known. In the first of the following cases restoration of function soon began; it was not obviously interrupted by the supervention of suppuration, and it became complete. In Case 2, where suturing was also immediately practised, restoration of sensation was imperfect, motor conductivity was greatly impaired, and muscular atrophy was very advanced ninety-three days after the date of the injury. Here there had been considerable loss of blood; the wound had inflamed, there was some sloughing, and also free suppuration—all circumstances unfavourable to repair. In Case 3, the nerve not being completely divided, no suture was applied, the unsevered portion appearing to be a sufficient bond, and the early result was encouraging. In Case 4, which illustrates division of the sciatic nerve within its sheath by crushing,

the result of abstention from resection and suture was most discouraging; for the hope that the undivided sheath might act as a sufficient bond, and union of the nerve take place, was not realised—one reason, perhaps, being the very damaged state of the nerve ends.

CASE 1. *Division of the median nerve; immediate suture; quick recovery of function.*—On Dec. 14th, 1887, a schoolboy aged ten years was admitted under Mr. Hulke with a deep cut crossing the flexor side of the forearm above the wrist, caused by pushing his hand through a window-frame. It reached from three-quarters of an inch above the root of the thumb obliquely downwards and inwards towards the ulnar border of the forearm, its length being about an inch and three-quarters. The distal end of the median nerve and of the tendons of the flexor sublimis digitorum were projecting between the lips of the wound; their proximal ends were not visible, having retracted. The house-surgeon enlarged the wound, found the proximal ends, and sutured the median nerve and also the tendons, using very fine silkworm gut sutures. The hand was flexed on the forearm and this on the arm, and fixed upon a splint. Within forty-eight hours a slight degree of sensibility to tactile stimuli was noted, and on the 19th (four days after the injury) sensibility was very good in the thumb and slightly present in the middle finger; it was yet absent from the index finger. Two days later sensibility was present in the index. Notwithstanding rigid antiseptic measures, suppuration ensued, which greatly retarded cicatrisation. On Feb. 14th. 1888 (two months from the date of the injury) he was discharged from the hospital, sensibility in all the digital branches of the median nerve being perfectly restored.

CASE 2. *Wound of forearm, severing the ulnar nerve; immediate suture; imperfect restoration of sensation; degeneration of motor fibres and muscular atrophy.* — J. C——, aged twenty-seven, an engineer, sustained two deep lacerated wounds in the flexor side of his left forearm through his foot slipping and his hand passing through a window-pane. A fellow-workman stanched the bleeding by tightly binding the wound, and brought him to the hospital, into which he was admitted on Oct. 9th, 1885. The ulnar artery and nerve were completely divided. Both ends of the bleeding artery were secured, and the nerve ends were brought together with fine catgut sutures passed through the sheath. Antiseptic measures and drainage were strictly observed, and the hand and forearm placed in a splint. Suppuration and slight sloughing ensued. On the 28th of the same month the first indications of a return of sensibility in the cutaneous distribution of the ulnar nerve were observed, the patient being conscious when touched with a pencil-point in this area, but was unable to localise the spot. Ten days later the improvement of sensibility was marked in the fifth and fourth fingers, but the patient complained much of a sense of numbness and of pain in them and in the hypothenar eminence. On Nov. 17th the contact of a point was not accurately localised, and pain was not felt even when a pin was so deeply pricked into the skin as to draw blood. On Jan. 11th, 1886, there was complete anæsthesia of the hypothenar eminence and of the extensor surface of the fifth finger. There was marked wasting of the interossei muscles. Dr. Pringle (at that time in charge of the electrical department) reported that none of the interossei responded to strong faradaic currents, but they reacted excessively to a weak galvanic current; the anodal and kathodal contractions were equally well marked. The patient shortly afterwards went into the country. His further history is not known.

CASE 3. *Incised wound of forearm partially dividing the ulnar nerve.*—W. P——, aged twenty-two, a cabinet-maker, on Dec. 6th, 1883, by the slipping of a chisel, cut his left forearm just above the wrist. The gash extended from near the root of the thumb almost to the styloid process of the ulnar, being deepest at the inner side. The radial artery, median nerve, and ulnar artery escaped injury, but the ulnar nerve was seen to be partially divided. The ulnar side of the flexor aspect of the ring finger and both sides of the fifth finger were devoid of sensibility, whilst the dorsal surfaces of these fingers retained it unimpaired. Obviously the injury to the ulnar nerve occurred below where it detaches its dorsal cutaneous branch. The edges of the wound were brought together by strongly flexing the wrist, and fixing the hand and forearm on a splint. Three days afterwards a return of sensibility in the fingers was noticed, and further improvement was observed at the date of his leaving the hospital on the 20th of the same month. He was directed to return after a further interval, but omitted to do so, so that his ultimate condition could not be ascertained.

CASE 4. *Division of the sciatic nerve within its sheath; very incomplete restoration of sensibility; transitory in some branches.*—E. N——, aged twenty-three, a strongly formed, healthy-looking Cornish woman, in domestic service in London, was admitted into Bird ward on May 7th, 1888, for injuries received by falling through a skylight. In the back of the left thigh, four inches above the ham, was a transverse, bruised, torn wound, dividing the deep fascia through a rent in which the muscles were bulging. Hæmorrhage, which had been copious, had nearly ceased. The leg, the patient said, felt dead; voluntary motion was lost, and also sensibility of surface in the distribution of the popliteal nerves and their branches. There was considerable shock and great mental dejection, from which she rallied slowly. On the 12th the wound was enlarged, the internal popliteal nerve exposed, and traced upwards to the sciatic trunk. The continuity of this latter was preserved by its strong, tough sheath, but a distinct difference in the consistence of the nerve cord within the sheath made evident a very small gap where the cord had been pulped and practically divided by the injury. Above this the sheath was blood-stained, and below it for some distance the internal popliteal nerve was also ecchymosed and swollen. The external popliteal nerve was similarly affected, but in a less degree. The muscles at the back of the thigh were found greatly bruised, and both they and the intermuscular cellular tissue were largely infiltrated with extravasated blood. In the expectation that the nerve sheath would maintain the ends of the severed nerve trunk in very close proximity resection of their damaged parts and suture were abstained from. Notwithstanding careful measures taken at first to render the fresh wound aseptic, and also observed at the operation, a free suppuration and some sloughing followed. On the 16th slight sensibility to touch was discovered in the distribution of the muscular cutaneous division of the external popliteal nerve on the upper surface and also in the sole of the foot. The former subsequently was lost, that in the sole and plantar surface of the toes being retained. It shortly became evident that she was pregnant, and on July 13th she left the hospital for an adjoining parochial infirmary to be confined, with the understanding that when this was over she should be readmitted into the Middlesex Hospital for nerve suture in case the condition of the leg had not appreciably improved. Unhappily she did not return, and subsequent inquiry failed to trace her. There were reasons for thinking that her fall was suicidal and not accidental.

In the above case later experience supports the view that it would have been better practice to have at once cut away the bruised nerve ends and sutured, for the slight indications of restored conductivity in the distribution of nerves derived from the internal and from the external popliteal nerve proved as regards the latter very transitory, and as regards the former, they were scarcely progressive during the nine and a half weeks the woman was in the hospital.

LEEDS GENERAL INFIRMARY.

A CASE OF GROWTH (?POLYPUS) IN THE URETHRA; DEATH; NECROPSY; REMARKS.

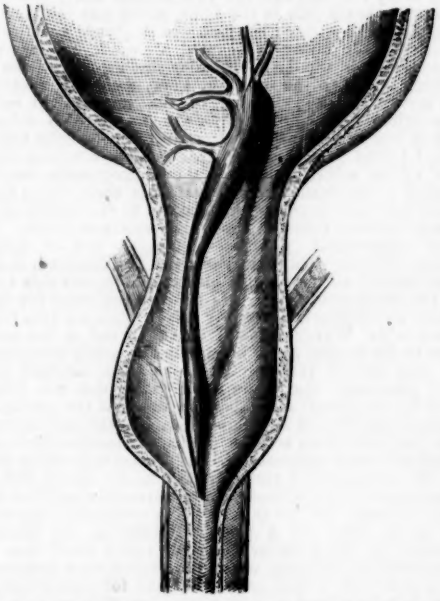
(Under the care of Mr. W. H. BROWN.)

TUMOURS of the urethra in either sex are extremely rare, if we except the vascular caruncle, which is not infrequent in the female. Writing on this subject, John Hunter[1] says: "I have in all my examinations seen only two, and these were in very old strictures, where the urethra had suffered considerably. They were bodies rising from the surface of the urethra like granulations, or what would be considered polypi in other parts of the body. It is possible they may be a species of internal wart, for I have seen warts extend for some way into the beginning of the urethra having very much the appearance of granulations." One specimen[2] to which he refers is still in the collection at the Royal College of Surgeons, and forms the only example of this condition in the museum, if we except comparative pathological specimens, amongst which there is a pyriform

[1] On the Venereal Disease, Works, vol. ii., p. 277. [2] No. 4422.

polypus, about two inches long, in the urethra of an ox attached to the veru montanum.[3] Altogether not more than thirty examples of these growths are on record, and few have exceeded the size of a nut, which was the size in M. Forget's patient.[4] Mr. Brown's case is, as he says, without parallel, and shows the symptoms which polypi produce in this canal, frequent micturition, obstruction to the stream of urine, occasional hæmorrhage, &c. For the notes and drawing of the accompanying engraving we are indebted to the dresser, Mr. Dixon.

J. W——, aged eighteen, was admitted on Feb. 14th, 1891, complaining of incontinence of urine. He gave the following history of his trouble:—For the past two years and a half he has had difficulty in passing urine; at times the stream would suddenly stop, and he was obliged to strain violently and bend double in order to void his urine. In the intervals between these attacks he was able to micturate without pain. All his pain was referred to the end of the penis. During the night he frequently passed urine whilst asleep. When walking about the urine was always dribbling away. Two years ago, whilst straining to micturate, he expelled about two ounces of bright-red blood. He stated that on this occasion no urine was passed either before or after the blood. This was the only occasion that blood was seen. On admission the patient was a healthy looking boy, but appeared to be much younger than his real age (eighteen). There was no sign of hair on the pubes, and the penis and testicles were of the size of a boy of nine or ten. There was a very tight phimosis. On his attempting to pass urine the stream was observed to be very small, and a curious



balloon-shaped swelling appeared just over the urethra at the junction of the penis with the scrotum. In front of this there could be felt a small hard mass, not unlike the feeling given by an impacted calculus, but scarcely so hard; this was thought to be due to hardened cicatrix. The balloon-shaped swelling could be emptied by syringing, and the urine passed both backwards into the bladder and forwards out of the urethra. The patient stated that he had been in the habit of expressing the contents of this swelling, and this proceeding always relieved his desire to micturate. The urine was found on examination to be natural.

Feb. 16th.—The patient was put under ether, and Mr. Brown tried to pass a sound, but the phimosis was so tight as to render this impossible. The prepuce was therefore slit up, when the sound readily entered the bladder. No stone was felt. Nothing more was done.

20th.—The boy looks ill and is vomiting; is very cold, and has the usual symptoms of uræmic poisoning. A very small quantity of urine was passed, and on examination this was found to contain one-fifth of albumen. The symptoms continued, and the boy died comatose the next day.

At the post-mortem examination a sound passed into the bladder without difficulty; a cicatricial-like mass was felt at the root of the penis. The organs were removed; and the urethra, having been slit open, was found to contain an elongated polypus-like body about two inches in length. Its posterior attachment was to the prostatic region in the posterior wall of the urethra. The posterior extremity of the polypus was cone-shaped with the base attached. From this attachment the body projected outwards along the urethra, gradually decreasing in size until its middle was reached, then expanding again to its anterior attachment. The portions between the attachments were quite free, and stretched after the manner of a bowstring in the urethra. That portion of the urethra corresponding to the extent of the polypoid mass was largely dilated, being of sufficient calibre to admit almost one's index finger; also its walls in this part stood permanently apart, so that the channel could be looked down, as it were. The bladder walls were somewhat thickened, and here and there roughened. One ureteral orifice was slightly dilated. The mucous surface of the urethra was quite smooth. The ureters were not dilated; their walls were thickened by submucous inflammatory changes (not caseous). The kidneys were extensively diseased, the left much more so than the right. The left kidney was about three times its natural size, and was completely converted into a many-chambered cyst. The outlines of each cyst indicated on the surface in such a manner as to suggest that each cyst had been formed by enormous dilatation of a pyramid and its extension outwards at the expense of the cortex. The cysts all inter-communicated so far as could be ascertained, and were completely filled with a thick, creamy, almost grumous pus, or an exceedingly homogeneous liquefied caseous material. There was no fetor or calculous formation. The appearance was undoubtedly not unlike that of tuberculous disease, but it was thought not to be really so in nature. The right kidney was in the same condition, but in quite an early stage of the change. Testes normal. All the other organs were healthy.

Remarks by Mr. BROWN.—I have not been able to find a record of any case similar to the one just related. The position of the tumour and its twofold attachment are, so far as I know, without parallel. The history of the case and the symptoms, with one exception, did not afford any ground for diagnosis, nor did the general appearance of the boy suggest that his kidneys were in such an advanced state of disintegration. The urine before the operation was natural. The symptom which might have perhaps guided us towards suspecting the presence of new growth was the one copious hæmorrhage (referred to in the notes) without the discharge of urine. Such bleedings being of frequent occurrence in rectal polypi, I am inclined to think that the tumour had its origin in the bladder and grew as the patient grew, being washed into the urethra by the outgoing flow of urine, and that its urethral attachment may have been due to inflammatory adhesions, the result of the patient's constantly handling the penis in his efforts to expel his urine. We failed to elicit any history of injury, of calculus, or of foreign body. It is, I think, only too clear that death was hastened and the shock occasioned by my slitting up the prepuce and passing the sound for the purpose of diagnosis, but I do not see how such an accident could have been either foretold or avoided.

[3] No. 4423. [4] Lond. Monthly Journ., 1852, vol. vii., p. 83.

THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—This institution maintains its efficient condition. All the departments are in excellent working order. During the past year 1211 patients were admitted. The daily average number of beds occupied was 95·40. The accident cases, treated as out-patients, and the dispensary cases, numbered 9145. The convalescent home at Bray, in connexion with this institution, continued to be utilised with great benefit to the patients sent there. Improvements in the dispensary, which is detached from the main building, had been effected at a cost of £274 15*s.* It was now complete as an extern department. The financial statement showed a balance on the debit side of £523 18*s.* 5*d.*, including deficiency of £187 4*s.* 3*d.* brought forward from last year.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Measles as a Cause of Endocarditis.—Chronic Traumatic Arthritis.

AN ordinary meeting of this Society was held on April 14th, the President, Mr. Timothy Holmes, in the chair.

A paper by Mr. JOHN H. HUTCHINSON, on Measles as a Cause of Endocarditis, was communicated by Dr. CHEADLE. The author called attention to the rarity of the occurrence of endocarditis as a direct result of measles. He recorded four cases of endocarditis, all of which occurred in an epidemic of measles at a boys' school:—Case 1: Boy, aged ten, with a rheumatic family history, developed mitral murmurs on the second day of the prodromal stage.—Case 2: Boy, aged nine, suffered from measles complicated with catarrhal croup and slight broncho-pneumonia; a mitral systolic murmur was heard on fifteenth day.—Case 3: Boy, aged nine, several of whose relatives had suffered from heart disease, probably rheumatic, developed broncho-pneumonia and pleurisy on the second day of the eruption of measles, and endocarditis on the fourth day.—Case 4: Boy, aged eleven, having had repeated attacks of follicular tonsillitis, but no articular rheumatism, whilst apparently convalescing from a rather severe attack of measles, developed a systolic mitral murmur on the fourteenth day. The author suggested that a rheumatic taint might have been a predisposing cause, since the first case had rheumatic history and had suffered from chorea, the third had family history of heart disease, and the fourth had follicular tonsillitis.—Dr. CHEADLE said that there was nothing improbable, on the face of it, that the endocardium should be stirred up by the poison of measles, just as the mucous membranes were; and meningitis, myelitis, and nephritis were known to happen in its course. This cause might account for a certain number of cases of so-called "unexplained heart disease." He had not met with any cases in the course of measles during life, but he had looked up the post-mortem records of the Children's Hospital in Great Ormond-street, and there were only two deaths in which affections of the heart were found amongst patients who died of measles. One was a case of old valvular lesion, and the other was one of pericarditis and pleurisy. He almost questioned whether this epidemic might not have been a very severe one of rötheln, as he had seen many more grave complications with that disorder than with measles. He doubted if in the first case the cardiac lesion could be put down to the measles, but the others appeared undoubtedly to be due to that cause. It was worthy of note that in none of the cases was there concurrent joint affection.—Dr. STURGES felt rather afraid that the author had drawn his conclusions from an insufficient number of cases. He thought it very improbable that endocarditis did follow measles, and in conjunction with this it should be remembered that it was often very difficult to say, from physical signs, whether endocarditis was present or not.—Dr. ROBERT LEE said that if he were asked what disease of the zymotic class left behind the least changes, he would have said measles. He had never been able to trace a single case of disease of the heart to that cause. It had been stated by older writers, no doubt on clinical evidence, that small-pox, measles, and scarlatina were causes of heart disease; but modern observations did not bear out this statement. He thought it probable that some latent constitutional tendency might be aroused into action by the measles poison, and that this tendency might bring about the valve mischief. It should be remembered that negative evidence would also be most valuable.—Dr. HAIG agreed with the author of the paper that more cases would be found if more were sought for. He had elsewhere maintained that endocarditis was due to the action of uric acid on the fibrous tissues of the heart. The action of the measles as a fever on the uric acid probably produced the lesion; one would not, however, expect to find it often in the course of measles, as the fever was usually slight. It was worthy of note that in two of the cases the measles was associated with broncho-pneumonia. He suggested that in the fourth case the cause of the murmur was probably dilatation of the heart.

Mr. W. ARBUTHNOT LANE then read a paper on Chronic Traumatic Arthritis. The author wished, in the face of the recent more accurate differentiation of the clinical conditions originally comprised under the several terms "rheumatoid arthritis," "rheumatic gout," &c., to separate from the mass of clinical and pathological material which was said to be characteristic of that disease, or rather groups of diseases, a definite variety to which he would apply the term "chronic traumatic arthritis," to distinguish it from the two other chief varieties—rheumatoid arthritis and rheumatic arthritis. He suggested this title for the reason that its course was a long one and constantly progressive, and its causation was simply and solely mechanical. He referred to a paper in the Transactions of the Pathological Society for 1886 ("The Causation and Pathology of Rheumatoid Arthritis and of Senile Changes"), in which he dealt with many of these changes in detail, and showed that they were the result of force exerted on one or several occasions upon a joint. These he stated briefly, together with other similar conditions which he had observed, and which he had described in various papers.—Mr. HOWARD MARSH said that he was surprised to hear the author state that no one had alluded to these cases of chronic traumatic arthritis, which were usually mixed up with those of rheumatoid arthritis. He had certainly heard these cases described by Sir James Paget thirty years ago, and he believed that Stanley had also alluded to them. In the museum of St. Bartholomew's Hospital there were hip-joints with the general characters of osteo-arthritis where the changes were the result of injury. He saw a case recently in a woman aged fifty-four who fell and bruised herself. She went about for a fortnight and then had to lay up. He saw her two months later, and there was then severe pain in the joint, which was stiff and the muscles were wasted; the limb was shortened and the foot everted. The injury had caused a chronic arthritis with absorption of the bone. Similar lesions were seen following injury to the shoulder, knee, great toe, or thumb. In certain cases a locking of the joint might result, the injury producing a chronic synovitis with thickening of the fringes, which got between the articular ends.—Mr. LANE of Bath remarked that in cases where an injury set up an arthritis there would be frequently found a history of scrofula. In osteo-arthritis there was a quick pulse and other neuroses which served to distinguish it, but these were not found in chronic rheumatic arthritis. The true rheumatoid joint was enlarged and of spindle shape, but the rheumatic joint was not enlarged, or only very slightly so. Grating, in his experience, was only found in the rheumatoid cases. He believed that some few cases might owe their origin to injury only, while some were mixed cases.—Mr. WARRINGTON HAWARD asked if the causation of the disease could be simply and solely mechanical. It was certain that numbers of people tumbled down and yet these changes in their joints did not follow. The true explanation, he thought, was that the mechanical disturbances evoked something that was previously there.—Mr. GOLDING-BIRD asked why these damaged articulations could not repair themselves. The disease was said to begin in the cartilage and result from a trivial blow; but the changes produced seemed to him impossible to follow from such a cause. He felt sure that they could only be induced in people who had a primary tendency. In cases of arthritis of the shoulder following injury there was not the slightest deformity, unless the patient were rheumatic. In a case were trouble at the hip had followed a blow, he found on examination, three years after, stiffness, pain, and wasting of the muscles, but no shortness or deformity.—Dr. ARCHIBALD GARROD said that the injury was the starting-point of the lesion, but not its actual cause. He referred to the case of a patient who had an injury to a small joint, and this was the starting-point of a general rheumatoid arthritis. The chronic arthritis resulting from injury to a joint in young persons did not present the rheumatoid characters: these lesions would not occur if the joint were perfectly nourished. In some cases the rheumatoid arthritis was local and due to a local cause, while in others it was general and due to worry or to some defect of general health.—Mr. PARKIN thought the three divisions suggested were valuable, the first group, of traumatic arthritis, occurring mainly in males, affecting large joints, associated with grating, but without nervous symptoms. The second affected chiefly young people; there were nervous symptoms, the ligaments were affected, there was sometimes effusion, and the small joints were principally involved. The third class were cases which

followed on acute rheumatism. The first variety seemed to him deserving of a special name.—Mr. LANE, in reply, said that he saw no difficulty in locating the change in the cartilage. If a thigh were fractured with two inches shortening and the lower fragment set at an angle, the cartilages in the joints would disappear very rapidly at the points of altered pressure; and if this would happen as the result of several slight pressures, he thought it might also follow a violent injury. He had seen rheumatoid arthritis pick out a damaged joint over and over again, but that was an instance of mere super-position, and differed from the cases he had described. He was unaware of the existence of any literature on this special subject.

CLINICAL SOCIETY OF LONDON.

Popliteal Aneurysm.—Lumbar Nephro-lithotomy.

AN ordinary meeting of this Society was held on April 10th, the President, Sir Dyce Duckworth, in the chair.

Mr. A. T. NORTON read a paper on a case of Popliteal Aneurysm in a youth aged seventeen. A parcel-post boy had felt pain behind the left knee for five months, and in March, 1890, being unable to work, he entered St. Mary's Hospital. The tumour occupied Hunter's canal and extended down into the popliteal space, which it filled. The part in Hunter's canal could not be diminished by pressure to such an extent as an aneurysmal cavity should be; there remained an apparent enlargement of the femur; the part in the popliteal space was quite as compressible as an aneurysm. The tumour pulsated and dilated in all directions. During pulsation a loud systolic murmur was heard over the whole tumour. The measurement around the tumour was 14¼ in. as compared with 13 in. in the corresponding position of the sound limb. Pulse 60; temperature normal; urine normal; tongue clean; appetite good; glands in both groins enlarged, also one under the chin. There was a difference of opinion as to the character of the tumour, Mr. Norton considering it unquestionably an aneurysm, others looking upon it as a pulsating sarcoma, chiefly on account of the fact that the femur could be felt enlarged in the position of Hunter's canal after steady compression of the tumour and on account of the youthfulness of the patient. In consequence of the difference of opinion, Mr. Norton determined to watch the tumour for a week, at the same time treating the patient by Tuffnell's method. On March 29th, finding the pain increasing, Mr. Norton tied the femoral artery in Scarpa's triangle. On May 5th the sutures were removed, the wound having healed by the first intention, and pulsation being re-established fully in the vessels below. On May 8th measurement over tumour reduced one inch; left thigh, 13¼; right, 12⅞. On June 21st, seven weeks after the operation, both limbs had increased in size, and both were nearly equal in size. Left thigh, 13½; right, 13¼. The position of the popliteal tumour was scarcely to be recognised, but in Hunter's canal could be felt a small sharp edge of bone or exostosis, which in all probability was the cause of the vessel giving way at that part, and hence the peculiarity of the aneurysm in a person seventeen years of age.—In reply to some remarks of the PRESIDENT, the author said that he regarded the femoral exostosis as the cause of the aneurysm; there was no heart disease and no arterial degeneration. He did not propose to deal with the exostosis surgically, as the aneurysm was cured, and the growth would probably not cause any further trouble.

Mr. G. R. TURNER related a case of Calculous Suppression of Urine with Double Pyo-nephrosis in which nephro-lithotomy was done on both sides at one sitting. The patient, a woman aged forty-five, was admitted into St. George's Hospital, under the care of Dr. Whipham, July 21st, 1890. She had led a very intemperate life, and had suffered from symptoms of renal calculi for five years, occasionally passing stones by the urethra. None, however, had passed for the last year. Three days before her admission she had a severe attack of pain in the right loin and groin, and for twenty-four hours before she had passed hardly any urine at all. She was weak and drowsy on admission, and in each lumbar region was a tender, evidently renal, tumour. The right was the larger of the two. On July 23rd, after consultation with Dr. Whipham, Mr. Turner decided to cut down on both of these from the loin. The bladder was quite empty, and no urine being passed. From the left kidney a large calculus weighing just under an ounce was removed. A quantity of extremely offensive pus occupied the dilated renal pelvis. This was irrigated with warm water and drained. The right loin was then dealt with in a similar manner. Pyo-nephrosis was present here also, but there was less pus on this side. Two rounded calculi weighing some five drachms were removed. In all more than two ounces of calculous matter were removed from both kidneys. She rallied well from the operation, a quantity of urine coming away from the drainage-tubes, and about an ounce was drawn off from the bladder by catheterisation. On July 27th she passed 3125 cc. by the urethra, slightly blood-tinged. The wounds did well, and her general condition was satisfactory till August 1st, on which day she became rather suddenly prostrate, and passed no more urine by the urethra, though a quantity of it and increased discharge of pus came from the loin wounds. Two stones the size of hazel nuts were found and removed from the right side; none could be felt from the left loin. Temporary improvement followed, but the patient finally died of asthenia on Aug. 3rd, eleven days after the nephrolithotomies. Post-mortem examination showed both kidneys to be most extensively diseased, four more stones in cavities on the right side, and another calculus on the left side plugging the ureter about one inch from its commencement. These stones could not be felt from the loin incisions. Remarks were made as to the best treatment for calculous suppression of urine, and it was suggested that, unless the patient's general condition forbade it, or one kidney was obviously hopelessly disorganised, unfit for any excretory work at all, both sides should be relieved by operative interference, not necessarily a nephrolithotomy on the second kidney, but at any rate a nephrotomy to relieve the mechanical obstruction.

Mr. W. H. A. JACOBSON read a paper on eight cases of Lumbar Nephro-lithotomy, forming a sequel to a previous paper on four cases of nephro-lithotomy, published in the twenty-second volume of the Clinical Society's Transactions. Case 1: Symptoms of renal calculus for five years in a man aged fifty-three; lumbar nephro-lithotomy; calculus (lime oxalate, 14½ gr.) removed from upper part of ureter; recovery. There was a history of five years' lumbar pain at intervals, with hæmaturia and frequent micturition. Urine: sp. gr. 1025; abundant lime oxalate crystals; light amount of albumen. Nephro-lithotomy performed on Oct. 7th, 1889. A small circular hedgehog calculus of lime oxalate was found and removed; recovery. Patient went out on Dec. 11th; remains well. The points of interest about this case were the age, the site of the stone (about 1½ in. below the kidney), and the fact that percussion, as advised by Mr. Jordan Lloyd, over the loin at once caused a stabbing pain. The liability of stone to be detained about two inches below the kidney, as well as in the narrow orifice of the ureter and where it bends over the iliac vessels, was pointed out by Mr. Godlee.—Case 2: History of calculus for eighteen years in a patient aged thirty. Large left renal swelling with stinking alkaline purulent urine. Nephro-lithotomy performed in August, 1889. Nine stones removed; urates, oxalates, phosphates, 333 gr. First attack of hæmaturia when twelve years old, occasionally since. Ten months ago rigors and urine turbid. Large tender swelling in left loin. Urine alkaline, stinking, and loaded with pus. No tubercle bacilli. On Aug. 10th, 1889, nephro-lithotomy was performed. Kidney enlarged. Eighty-nine rough, foul stones removed, one jammed in ureter. Patient made a good recovery, but a fetid sinus persisted, from which a large quantity of watery urine came away, requiring a lumbar nephrectomy, which was done in August, 1890. One stone left behind in uppermost part of kidney; recovery.—Case 3: Calculous pyelitis closely simulating tubercular pyelitis in a patient aged twenty-nine. Exploration Nov. 16th, 1889; removal of eight calculi (mixed urates, 39 gr.) and much pus; complete recovery by February, 1890; remains well. Patient was a woman aged twenty-nine, with a much enlarged and tender right kidney. Much pyo-uria; very scanty history of hæmaturia. Morning temperature 99°; evening 100°. Family history of phthisis. Exploration on Nov. 16th, 1889. Removal of eight stones and much pus. Kidney much expanded and damaged; recovery. All soundly healed by Feb. 18th, 1890. Patient remains well.—Case 4: Severe symptoms due to a very small calculus (lime oxalate, 25 gr.) in upper part of kidney; nephro-lithotomy; stone found

with much difficulty in an upper calyx; recovery. E. S——, aged eighteen, had had frequent hæmaturia, severe pain in left loin and testicle, for a year. Nephro-lithotomy on July, 1890. It was only when search was about to be abandoned that a small lime oxalate calculus was detected, which was extracted with some difficulty. Wound in kidney firmly plugged with strips of sal alembroth gauze; recovery. Patient went out five weeks later with a small sinus. Two weeks later some shreds of gauze presented themselves in this sinus, and three strips (1 in. by 4 in.) were removed by Dr. Lever of Harrogate. Sinus closed firmly, and patient has remained entirely well since.—Case 5: Strong evidence of renal calculus for five years in a patient aged thirty-eight; exploration, August, 1890; no stones found; descent of two in October, one being removed from urethra, the other treated by lithotrity.—M. C——, a shipwright, had been subject to lumbar pain and hæmaturia for five years. In 1885 he passed a calculus. Exploration on August, 1890; good recovery. Went out on Sept. 15th; returned to full work in October. Shortly after a stone was impacted in the urethra and removed by forceps. Since then micturition has been frequent, painful, and interrupted. Small stone detected in the bladder and crushed on Nov. 28th; crushings weighed 20 gr. Patient heard of in March, 1891, in good health, and able to follow his occupation regularly.—Case 6: Symptoms of a year's duration; supra-pubic lithotomy in America; nephro-lithotomy; kidney very high up; calculus (uric acid and oxalates, 54 gr.) removed from pelvis; recovery.—A. C——, aged thirty-three, has had three attacks of left renal colic in the last year. Nine months ago his symptoms being thought to point to vesical stone, supra-pubic lithotomy was performed in the Pennsylvanian Hospital without any result. Nephro-lithotomy, Oct. 10th. Kidney placed very high up. Stone easily felt in pelvis, and hooked out with finger. Recovery. Went out on Nov. 15th. Remains well.—Case 7: Symptoms of ten years' duration in a patient aged twenty-five; nephro-lithotomy; wound of peritoneum; calculus (lime oxalate, 33 gr.) removed from pelvis; uninterrupted recovery. C. K. D——, labourer. Kidney trouble began ten years before; attacks of left side and lumbar pain and hæmaturia frequent. Marked lumbar tenderness. Nephro-lithotomy, Oct. 17th. Peritoneum accidentally wounded. The day after the operation, to ensure safe drainage, the kidney was sutured well up into the wound. Recovery uninterrupted. Patient went out on Nov. 23rd.—Case 8: Fifteen years' symptoms in a patient aged forty. Diagnosis of cystin calculus from deposit in the urine; nephro-lithotomy; grave condition of shock throughout the operation; four calculi removed, three of pure cystin; recovery, but a sinus remained two and a half months after the operation. Miss B——, aged forty, seen in December, 1890. For fifteen years increasing misery with right lumbar pain and tenderness. Occasional hæmaturia. Right kidney very movable. Nephro-lithotomy on Jan. 25th. Four calculi removed from dilated pelvis. Operation easy and brief, but patient's condition most grave from collapse throughout. Recovery, but a tiny sinus allowing of a slight escape of urine was present two months and a half after the operation. Mr. Jacobson suggested the following points to the meeting: 1. That in doubtful cases of tubercular disease, especially of the genito-urinary tract, where, as in Cases 2 and 3, the diagnosis between calculous and tubercular pyelitis remained obscure, the aid of bacteriology—i.e., inoculation of the suspected fluid either into the anterior chamber or beneath the skin of an animal—would readily clear up the case. He alluded to two cases, one of obscure cystitis, the other of a lateral lithotomy wound in a child, which with the inguinal glands became infected, in both of which the case was made plain by inoculation by Dr. Washbourn. 2. Information was sought for the best means of detecting small stones impacted high up in the kidney itself, Cases 4 and 5 showing the extreme difficulty that might be met with here. 3. With regard to the cystin stones removed in Case 8, Mr. Jacobson sought information as to the risk of recurrence, and whether there was anything in the pathology of cystinuria that accounted for the extreme weakness of the patient, and the very grave condition of shock which was present throughout the operation.

Mr. BILTON POLLARD reported a case of Nephro-lithotomy in a boy aged ten. During the past three years the boy had been subject to attacks of abdominal pain associated with hæmaturia. The attacks of pain were not characteristic of renal calculus. The hæmaturia was sometimes profuse. The urine contained no pus, and when free from blood it appeared to be healthy. The right kidney could be felt; it was not tender on pressure, and there was no renal tumour. The boy's general condition was good, although he was anæmic. On Dec. 25th, the right kidney was explored through the lumbar incision at the North-Eastern Hospital for Children. The stone could be felt in the pelvis of the kidney by the finger, and was also struck by the exploring needle. It was easily extracted through the cortex of the kidney. The stone weighed twenty-seven grains. The kidney bled rather freely, but the bleeding was stopped easily by plugging the wound in the kidney with gauze. The gauze was removed on the following day, and the tube on the second day after the operation. No blood appeared in the urine after the operation, and as the discharge of urine from the wound did not diminish materially, the renal pelvis was again explored on the fourteenth day after the operation, as it was thought possible that it might be plugged with blood clot. No clot was found. A fine tube was passed in the direction of the ureter, and some lotion syringed through it with the object of dislodging a clot if there was one impacted in the ureter. The quantity of urine which escaped from the wound now diminished quickly, and ceased entirely after the fifth day, and the patient made a complete recovery. It was now sixteen weeks after the operation, and the patient continued well. From inquiries which Mr. Pollard had made, he thought nephro-lithotomy was a rare operation in childhood. Mr. R. W. Parker had twice operated for renal calculus in children at the East London Hospital, but no cases of the kind had occurred in three other London children's hospitals, nor yet at the Pendlebury Children's Hospital. Mr. Pollard reported the case with the view of ascertaining the experience of others in regard to renal calculus in childhood.

Sir DYCE DUCKWORTH referred to the preliminary medical treatment of renal calculus, alluding to the success which had been met with in large numbers of cases by "flushing out" the kidneys with indifferent waters, such as those of Bath, Buxton, or Contrexéville. He said that the presence of cystine in the urine was often associated with severe forms of dyspepsia, but he did not know that it was connected with a scrofulous family tendency. In the cases which had been related the occurrence of a loin sinus had been singularly infrequent.

Mr. PARKER referred to the case of a little girl on whom he had performed nephro-lithotomy, and who for several years had suffered from indefinite renal symptoms. Stones had often been found in the kidneys of children post mortem, when there had been no evidence pointing to calculus during life. In a boy aged twelve, particulars of whose case he had published, the first symptoms followed a fall over a form at school. He died of suppression of urine, and at the necropsy the right kidney was found enlarged and full of stones, while the left was a mere sac, and was also full of stones. During life there had been no symptoms like those of renal calculus. It would be very interesting if in cases of calculus in adults an accurate history of the earliest symptoms of stone were invariably recorded.

Mr. JACOBSON, in reply, said that in one case he had operated on a persistent sinus had remained, dne, he believed, to his leaving a calculous fragment behind. A persistent sinus would be likely to follow in cases of multiple stones with pus; but these, fortunately, were rare. In one instance, where the kidney was unusually low down, he unfortunately, during digital examination, opened the peritoneum.

Mr. A. T. NORTON said that a calculus might lodge in the ureter about two and a half to three inches in the bladder, and this was the explanation of a persistent fistula which followed in one case in which he had opened an enlarged kidney through the loin. In another instance he had performed nephrectomy and a persistent fistula had resulted; this also, he felt sure, was due to a calculus lodged in a similar position; and the intermittent escape of pus by way of the bladder, which had several times taken place, was probably from a loculus in the neighbourhood of the stone. He proposed opening the peritoneum in order to discover the source of the obstruction.

MEDICAL SOCIETY OF LONDON.

The importance of the Trigonal Pouch in the Surgery of Vesical Calculus.

AN ordinary meeting of this Society was held on April 13th, the President, Dr. Douglas Powell, in the chair.

Mr. G. BUCKSTON BROWNE read a paper on the importance of the Post-prostatic or Trigonal Pouch in the Surgery of Vesical Calculus, and he illustrated his remarks by several cases. The first portion of this communication will be found in another part of our present issue.

Mr. HOWARD MARSH had a case to relate which bore on the subject of the discussion. An old man of seventy-nine complained of frequency of micturition, accompanied by such severe pain that it caused him to kneel on the floor and grasp any furniture that might be within his reach. On examination he was found to have a greatly enlarged prostate. He had suffered from stone for many years, and lithotrity had been performed. The stone could not be found with the sound until its beak was turned down behind the prostate where it lay. It appeared impossible to do lithotrity successfully, and, lateral lithotomy being quite out of the question owing to the size of the prostate, he determined to perform the supra-pubic operation. Four curiously facetted calculi were found lying under an overhanging prostate, and were removed, the patient making a good recovery. He himself was impressed in favour of the supra-pubic operation, even in children, and he failed to recognise those drawbacks to it which had been expressed by some surgeons, who appeared to regard it as an exploded method.

Mr. REGINALD HARRISON entirely concurred in the two propositions put forward in the paper. Lithotrity in a normal bladder was quite a different procedure from what it was in the cases which had been related. He was sure that a great many recurrences of stone were due to the fact that lithotrity had been attempted under what were practically impossible conditions. As to the selection of supra pubic cystotomy, he believed that many of these cases could have been better treated by median perineal lithotomy. He had practised it many times; it drained a misshapen bladder better; one was often able to do something with the enlarged and obstructing prostate, and the necessity for using a catheter was no longer required. He did not go so far as some in his opposition to supra-pubic lithotomy, for indeed he had often performed that operation, but yet he felt that there was still a place, and perhaps a large place, for the perineal method.

Mr. SWINFORD EDWARDS failed to see how some of the calculi could have been removed by the perineal route. One of the cases described appeared to be a variety of encysted calculus, and this class of case did not lend itself to lithotrity. He had had one fatality in attempting to crush an encysted stone, and so also had Mr. Butlin, the junction of the cyst with the wall of the bladder being damaged. In another of the cases the symptoms appeared to him to be due more to the large and projecting prostatic lobe than to the small stone behind it. In some instances the stone could be dislodged by inverting the patient and pressing the stone from the pouch into the bladder. He inquired if supra-pubic wounds had been found to heal kindly in old people.

Mr. PEARCE GOULD referred to the case of an old man aged seventy, in whose bladder he found a stone in October last. Lithotrity was performed and the patient left relieved. Two months later he returned with his old symptoms, and after repeated soundings another calculus was found. On passing the lithotrite Mr. Gould was unable to seize the stone. He felt inclined to do the supra-pubic operation, but was persuaded by a colleague to perform the perineal operation. By this route his finger failed to reach the post-prostatic pouch, but he removed the calculus with the forceps. The wound again healed, and the patient left, only to return later with recurrence. This time supra-pubic lithotomy was done and seven small calculi removed; the patient died on the sixth day. There was no doubt that the only ready means of removing calculi from the post-prostatic pouch was by supra-pubic lithotomy.

Surgeon-Major KERGAN felt that the paper would fill a gap in the literature of vesical calculus He asked if it was right to perform any operation for stone in a very old man. He thought that recurrence was extremely likely to happen. The sound which was exhibited he regarded as a valuable instrument.

Mr. CAMPBELL WILLIAMS related a case in which supra-pubic lithotomy was followed by median cystotomy. The patient, who was sixty-four years of age, and possessed an enlarged prostate, disliked the crushing operation, and therefore supra-pubic lithotomy was done. A large stone was removed, and the bladder being illuminated, it was certain that it was completely evacuated. Three months later he came back with his old symptoms, and was cut from the perineum, three stones being removed. He was certainly worse after the perineal than after the supra-pubic operation. In one case of supra-pubic lithotomy which had proved fatal in Mr. Hill's practice, there was violent hæmatemesis after the administration of the anæsthetic. It should be remembered that even inversion might not remove a stone from the post-prostatic pouch.

Mr. MARMADUKE SHEILD suggested that the spiked calculi which had been shown were probably oxalates. He held that it was of value to make a rectal examination at the same time that sounding was being done. If a patient presented great irritability of the bladder with occasional hæmorrhage, he thought exploration was justifiable, even if the stone could not be felt with the sound.

Mr. BUCKSTON BROWNE, in reply, said that the case related by Mr. Marsh had been under his own care seven years before, and at the lithotrity there was great difficulty in clearing the bladder, a perpendicular lithotrite being used. It was a pity that there was a prejudice amongst many members of the profession in favour of the lateral operation, for such prejudices were unsurgical. The particular cases which he had related were those which discredited lithotrity, whereas a good search by means of the supra-pubic method cleared the bladder for certain. The median perineal cystotomy was a bad operation in cases of prostatic enlargement. The case of the old man referred to by Mr. Edwards was operated on because of the extreme suffering he was undergoing, and in that case a large portion of the prostate was also removed. The supra-pubic wounds healed remarkably well if but little was done to them—one stitch being placed in them, the bladder being left to itself after good drainage was provided. He held that if an old man suffered much he should not be denied an operation for vesical calculus on account of his age, for death from stone in the bladder was usually terribly painful. The supra-pubic wound healed better, there was no bleeding, there was complete access to the bladder, there was usually no fistula, and the drainage was as good as by the perineal route, for the bladder was not a pelvic but an abdominal organ in cases of enlarged prostate. The spiked stones had not been analysed, but those found in the kidney of the same patient were undoubtedly uric acid. It appeared to him to be very difficult to sound the bladder if a finger at the same time were kept in the rectum. An independent rectal examination had been made in all the cases he had related. He concurred that the rule prohibiting operation unless a stone were felt was one requiring modification.

EPIDEMIOLOGICAL SOCIETY.

A MEETING of this Society was held on March 18th, Jos. Ewart, M.D., F.R.C.P., President, in the chair.

A Retrospect of the Successive Epidemics of Cholera in Europe and America from 1830 to 1890.—Dr. EDWARD F. WILLOUGHBY read a paper on this subject. After alluding to the doctrine of epidemic influences, telluric and atmospheric conditions, and other unknown agencies as at once baseless and needless, and to the opposite delusion, prevalent in the south of Europe, of its being infectious in the same sense as small-pox, he asserted that all independent and scientific students of the subject in Europe and America were now agreed that the vehicle of contagion was contained in the evacuations, that it was thus carried by fomites as soiled clothing &c, while persons suffering from the disease even in unrecognised and mild forms infected the soil and water of places through which they passed. Insanitary conditions favoured its development, but the most insanitary towns—as Rome, Seville, and others—had escaped, since they had been provided with pure water supplies. The incubation period he believed to be as a rule from one to two days, four being an ample limit for quarantine pur-

poses. Its transportability and conveyance wholly and solely by human intercourse was proved not only by the progress of every epidemic having followed the great routes of trade and pilgrimages, but by the rapidity of this progress having corresponded to the facilities for travel, whether by caravans, river boats, railways, or ocean steamers, quoting in this connexion Dr. de Renzy and others as to the altered circumstances of travel in Northern India; and he thus explained the immunity of Australia and Chili, virtually the most isolated communities in the civilised world. It was, he said, in 1821 that cholera, so far as was known, first advanced from India westwards, reaching Astrakhan in 1823, but subsiding until 1827, when a fresh wave swept over Persia, entering Russia in 1829. In 1830-31 it was fomented by the war in Poland; in 1831-32 it spread over the whole of Europe; and in 1832-33 over North America, lingering in each continent for about two years longer. It was remarkable, and totally inconsistent with the theory of conveyance by winds, that, though some cases had occurred on board ships in the Medway as early as July, 1831, it did not reach London till February, 1832, having effected a landing at Sunderland and travelled *vid* Newcastle, Edinburgh, Glasgow, Belfast, Dublin, and Cork, whence it was at length brought to London. A wave rolled over Persia, Arabia, and Syria between 1836 and 1839, but retired again. In 1840 it entered China, then passed westwards through Central Asia, re-entering India from Afghanistan and through North Persia, reaching the Caspian and Black Seas in the summer of 1847. Following the military road then in course of construction from the Caucasus to Moscow and the river highway of the Volga, it was intensified and spread by the fair at Nijni Novgorod and the massing of the Russian, Austrian, and insurgent Hungarian armies on the Danube, and in the course of 1848-49 had attacked every country in Europe except Denmark and Greece, which were saved by stringent quarantine. It extended to America in 1849, but died out in the course of the following year. The epidemic of 1854 was not strictly a separate invasion, but rather a resuscitation of the last, which had lingered in the south and east of Europe and the west of Asia until called into fresh activity by the Crimean war. Every country in Europe and America was again invaded. The incidents of the outbreaks in America threw great light on the conveyance of the disease by fomites. The epidemic of 1865-66, which was the first to come wholly by the Red Sea, spread rapidly over Europe and America; but had scarcely subsided when a fresh explosion occurred at the Hurdwar fair in India in 1867, whence it was carried to Persia and Russia, being reintensified *en route* by the pilgrimage at Great Mesched in 1868 and the fairs at Nijni Novgorod in 1869 and 1870. At the close of the Franco-German war every country in Europe was attacked except Great Britain, and America succeeded in averting its importation until 1873. By 1874 it had, however, disappeared everywhere on this side of India. In 1881-83 it prevailed in Arabia and Egypt; in 1884 it made its appearance in France, and soon raged throughout Italy and Spain. The influence of pure water supplies was brought into special prominence, not only in the case of single towns in Italy and Spain, but in the almost complete immunity enjoyed by Germany, which had previously suffered heavily in every epidemic. Cholera lingered in the south until the end of 1885, since which date it had been absent from the continent of Europe until the isolated outbreak in Spain in 1890. This, Dr. Willoughby was convinced, was not imported from the East, but was a recrudescence of the epidemic of 1884-85, brought about by excavations in infected ground. Still cholera had since 1888 been slowly but steadily advancing by the Persian Gulf and the extensions of that route. It had last year reached the shores of the Caspian and Black Seas, and had raged at Mecca, though Egypt had almost miraculously escaped, and it had persisted at Aleppo and the Syrian ports certainly as late as January of the present year. He had little doubt that, as its march had closely corresponded with that in 1845-47 we might expect history to repeat itself in an invasion of Southern and Eastern Europe during the coming summer, unless, as in 1823 and 1839, it should retire, after having thus approached the confines of Europe. If, however, it had not already really died out, the vast increase of communication between the two continents rendered such recession less probable than it was fifty years ago. The paper was illustrated by a number of maps showing the great routes and the course of each epidemic in Asia, Europe, and America.—Sir W. MOORE gave his experience of an outbreak at Aden following the unloading of cargo which was proved to have been soiled with cholera excreta at Bombay, the crew remaining healthy; and Mr. MURPHY alluded to Dr. Simpson's having traced the occurrence of cholera on board certain ships moored in the Hooghly to an infected milk supply.—Surgeon DAWSON argued in favour of epidemic influences, but Dr. WILLOUGHBY, in reply, urged that in the case of the ships at sea quoted by Mr. Lawson the crews who must have been most exposed to atmospheric influences escaped, the steerage passengers only being attacked; while such negative evidence as that of the Southampton and Theydon Bois outbreaks in 1865 was worth nothing. It was more probable that someone suffering from mild and unrecognised cholera had crossed over from France, and, leaving the infection behind, had perhaps returned, than that Mr. Groombridge had inhaled it with the sea breezes on Weymouth pier. Such difficulties were incident to all cases even of small-pox, the source of which no one doubted.—The PRESIDENT complimented Dr. Willoughby on having brought within the compass of a single paper a mass of information hitherto inaccessible, and on having by his demonstration of the almost "postal regularity" with which the late epidemic followed the routes of travel by road, rail, and steamships, regardless of prevailing winds, but refusing to cross the Scandinavian and Carpathian mountain ranges in mid-winter, given the *coup de grâce* to the doctrine of atmospheric waves which in the case of this disease he had until that evening accepted.

HUNTERIAN SOCIETY.

A MEETING of this Society was held on March 11th, Dr. Stephen Mackenzie, President, in the chair.

Phonographic Illustration of Disease.—Dr. HUGHLINGS JACKSON and Dr. RIVERS showed a phonogram recording the abnormal talking of a patient the subject of disseminated sclerosis. The phonogram was exhibited by Mr. Cole, of the Edison United Phonograph Company. The patient whose talking was reproduced was a man aged twenty-six, who in the course of about five months became affected in an extreme degree with the symptoms of disseminated sclerosis—viz, oscillation of the head, nystagmus, coarse jerking of the arms and legs on voluntary movement, increased knee jerks, and ankle clonus, as well as a typical high-strained jerking and syllabic utterance, which was very well reproduced by the phonograph, the first verse of "Old Mother Hubbard" being rendered by the instrument.

Sarcoma of Brain.—The President brought forward a microscopical specimen of Tumour of the Brain from a man aged forty-eight, who died with grave cerebral disease, surmised to be syphilitic. There was found a tumour of sarcomatous structure the size of a nut, situated between the medulla and cerebellum, apparently arising from the floor of the fourth ventricle.

Osteo-myelitis of Tibia.—Dr. J. LANGTON HEWER showed a specimen of chronic osteo-myelitis of the tibia. A young man aged twenty had suffered from childhood. The interest of the case lay in the fact that two operations had been performed at seven years' interval. At both the diseased bone was thoroughly removed, and the medullary canal was fairly cleared out and flushed. The first operation was done under strict antiseptic precautions, and the large aperture left in the bone was allowed to fill with blood-clot, which in due time organised. The second operation was made entirely without antiseptics, and the wound filled with granulations. Recovery from both was equally speedy and good, but in the first case a tender scar was left, which gradually became again painful, and broke down. The cicatrix left after the second operation remained firm and sound. Dr. Hewer's suggested inference was that sounder tissue was obtained by the method which involved some inflammation and granulation than by the aseptic method which excluded inflammation.—Mr. J. POLAND referred to other cases of osteo-myelitis.—Dr. F. J. SMITH thought this an illustration of the beneficial action of morbid germs. He was reminded of the experiments of inducing erysipelas for the cure of tumours; next to these came the discovery of phagocytes and the strife they wage; and surely the next stage would be that physiologists would

fully describe the life histories and uses of micro-organisms, and we should be enabled to give our patients doses of them, much as we now give soda and gentian.

Ulcerative Aortitis.—Dr. TURNER showed two specimens of ulcerative aortitis from surgical cases in elderly women; one of injury (run over); one of gangrene of the toes. It is common to find slight ulceration of the aorta in cases of injury, but not, as in these cases, extensive lesions. Sections were made of the aorta in one case, but no micrococci were discovered, contrary to expectation. Drawings were exhibited of other specimens observed by Dr. Turner, showing in one case masses of micrococci in the inner coat of the vessel, and in another masses of fibrinous coagula attached to the wall.—The President, Mr. G. J. B. Stevens, Dr. Galloway, and Dr. Pitt discussed the specimens and referred to other cases.

Hydronephrosis.—Dr. G. NEWTON PITT showed two specimens of hydronephrotic kidneys, one of them illustrating how aberrant renal vessels, when the pelvis is slightly distended, may cause a kink or bending in the ureter and obstruct the passage of urine. Massage might be useful in such a case. The second specimen was from an infant, dying from some other disorder, in whom one ureter was found to open into the pelvis by a mere pin point orifice, and the pelvis was somewhat dilated. The condition was apparently congenital. In stricture of the urethra attended with backward pressure it was not uncommon to find the pressure exerted unequally upon the two kidneys, one pelvis being distended.—Mr. F. R. HUMPHREYS referred to a case of congenital stricture in a boy, where one kidney was hydronephrotic, the other granular.

Buccal Lipoma.—Mr. J. HUTCHINSON, jun., showed a small pedunculated fibro-lipoma from the inside of the cheek of an infant. He suggested that it was really a protrusion of a portion of the pad of fat (Cloquet's pad or the sucking pad) which lies behind the buccinator.

Sarcoma of Lower Jaw.—Mr. J. HUTCHINSON, jun., also exhibited a soft periosteal sarcoma removed from a man of thirty-five. There were curious polypoid projections along the mucous membrane, which had caused some difficulty in the diagnosis. The disease had recurred.

Polypus of Rectum.—Mr. J. HUTCHINSON, jun., likewise brought forward a microscopical section showing the structure of a polypus.

At the close of the meeting Mr. COLE kindly gave some interesting illustrations of the Phonograph, and explained its mechanism.

A meeting of this Society was held on March 25th.

Tumour of the Neck.—Dr. S. H. APPLEFORD showed a case of rapidly growing cervical tumour in a man aged thirty-three. A large hard mass occupied the lower part of the neck beneath the right sterno-mastoid muscle, and there were some hard glands along its hinder edge. The voice was hoarse.—The PRESIDENT referred to several such cases, and thought the diagnosis lay between lymphadenoma and syphilitic disease of the glands, inclining to the former.

Recovery from Hydrocephalus.—Dr. HINGSTON FOX showed a boy, now aged six years and nine months, who had at nine months much enlargement of the head following pneumonia, a wide median fissure extending from two inches above the root of the nose to near the nape of the neck, clearing the frontal and occipital bones. The head was now well ossified throughout, though bulky, 23½ in. in circumference. Some lateral nystagmus existed, but sight and hearing were fairly good; intellect rather babylike. A favourable prognosis might perhaps have been based six years ago on the absence of convulsions or vomiting, the good family history, teeth formation undelayed, and perhaps the occurrence after a specific disorder.

Modern Methods of Performing Cæsarean Section.—Dr. GALABIN read a paper on this subject. These operations were more numerous abroad than in this country, and statistics must be based on continental experience. Some would even prefer it to craniotomy, which had indeed at Guy's a high mortality—16 per cent. or more,—but he ascribed this largely to the adverse effect of previous attempts to deliver by forceps &c. Porro's modification in 1876, by which the entire uterus and ovaries were removed, was described and discussed. Sänger's method was published in 1882, his object being to close the uterine wound by a system of deep (muscular) and superficial (peritoneal) sutures, and so keep the uterine and peritoneal cavities shut off. Success depended much on the operation being a primary choice, without attempting other means first. In a multipara one need not wait for labour to commence, but it was usually best to puncture the membranes. The use of an elastic ligature around the neck of the uterus was on the whole good. Silver wire was preferred for the deep sutures; the superficial are so arranged as to bring flat surfaces of peritoneum in contact. A specimen was shown in which the uterine wound had closed well on this method; the patient died from accidental opening of the abdominal wound on the ninth day. Cameron of Glasgow used no superficial sutures, thus shortening the operation, and has published ten cases with only one death. Adhesion of uterus to the wall of the abdomen, which often occurred, was not altogether undesirable. Sterilisation of the patient by removing ovaries or tying the Fallopian tubes near the outer end was often advisable. Notes of a successful case were read: a woman with a contracted and flattened pelvis, none of whose children has survived. Sänger's method was followed, and except for inertia of the uterus, hæmorrhage, and later on a sinus at one part of the wound which gave a little trouble, she did well and recovered. The use of "delta" metal for the pins and wires for the pedicle in Porro's operation was noticed. The mortalities of the two operations respectively to end of 1889 are: Sänger's, 23 per cent.; Porro's, 58 per cent. Porro's may be the better after long attempts to deliver through the pelvis, and it is simpler to execute for those who are inexperienced.—Dr. HERMAN read notes of a recent case in the London Hospital. A woman, aged thirty-seven, had been in labour eighteen hours. A hard mass was felt in the left iliac fossa; there was œdema of the perineum, and the pelvis was filled with a hard elastic tumour. Catheterism was impossible. On opening the abdomen this tumour was found to be the full bladder. The uterus was opened, and the placenta on its anterior wall cut through, and the child extracted by the feet. Free hæmorrhage occurred. The abdominal walls were held close during extraction, and the application of sutures of silk and catgut. The child survived. Paroxysmal abdominal pains and vomiting continued, and the patient died on the third day. At an imperfect necropsy, a large osteo-sarcoma was found in the iliac fossa; the uterine wound was well healed. Cæsarean section could never, Dr. Herman said, supplant craniotomy, the mortality from which ought not to be higher than from natural labour. The size of the pelvis can be measured, therefore risk should not be increased by trying other methods. Turning out the uterus added to the risk of the operation; the walls could be held by assistants. The elastic ligature was likely to interfere with the contractile power of the uterus, as was shown by experiments on animals, although it lessened the hæmorrhage for the time. The peritoneum must be accurately brought together; it unites well and is the strongest part of the uterine wall. Exposure of the bowel was a frequent cause of death, as probably in his own case, and this was the chief drawback of Cæsarean section as compared with Porro's operation, for careful suture of the uterus was essential and takes a long time.—Dr. HORROCKS preferred Cæsarean section to Porro's operation, as much less mutilating and involving less shock. In certain cases, as rupture of the uterus or cancer, Porro's may be preferable. In a case operated on a year ago he found it very difficult to apply the elastic ligature before opening the uterus. Time was of great importance, and on another occasion he would follow Cameron and not put in sutures at all, except about two for the peritoneum; this shortened the operation by one half. In his own case he tied the Fallopian tubes with kangaroo tendon, following Dr. Champneys; no pregnancy had followed. The lumen was by this means well occluded.

MANCHESTER MEDICAL SOCIETY.

A MEETING of this Society was held on April 1st, Thomas Jones, M.B., B.S., F.R.C.S., in the chair.

Cerebral Abscess.—Mr. SOUTHAM showed a case of trephining for an abscess situated in the anterior lobe of the brain, following a punctured fracture of the frontal bone. On the fifth day after the operation there was a copious discharge of cerebro-spinal fluid from the wound. This appeared to come from the lateral ventricle, owing to

the formation of a communication between it and the abscess cavity. After continuing for a week the discharge of fluid ceased, and the wound afterwards healed, the patient making a complete recovery.

Acute Lympho-sarcomatosis (acute Hodgkin's disease).—Dr. DRESCHFELD related the following case. A man aged twenty-three was admitted into the Manchester Infirmary on Feb. 19th, 1891, complaining of great weakness, cough, and dyspnœa. He had always enjoyed good health, being temperate, and never had syphilis. In the beginning of this year he began to be troubled with a cough, but went on with his work till Jan. 23rd, when he had a rigor, followed by pain in the right side of the chest. He then took to his bed, but, getting weaker, he sought admission into the infirmary. On admission he was found intensely anæmic. The examination of the chest showed some dulness over the upper part of the sternum, extending to the second and third intercostal space on the right side; there was dulness on the left side of the thorax behind, extending to the angle of the scapula, with diminished breathing and diminution of fremitus; localised dulness in the interscapular region on the right side with increased fremitus and crepitations; there was some muco-purulent expectoration. The pulse was 110, small, and very compressible; the liver was found slightly enlarged, likewise the spleen. The superficial glands in the neck, axilla, and groin showed no enlargement. Both retinæ showed extensive hæmorrhages; otherwise the nervous system showed nothing abnormal. The temperature was 100°; the skin dry; the body fairly well nourished. The examination of the blood showed a marked increase of leucocytes (one to about thirty red blood-corpuscles); most of the leucocytes were very small, mono-nuclear, the nucleus finely granular, the granules not staining well with eosin; the red blood-corpuscles showed numerous microcytes and poikilocytes. Urine, sp. gr. 1020; very pale; contained a large sediment of urates, which, from the absence of blood-colouring matter, appeared only very slightly tinged; no urobilin. The clinical diagnosis was intra-thoracic tumour of the nature of lympho-sarcoma, effusion in the left pleura, pneumonia of right middle lobe, hyperplasia of spleen and liver with secondary deposits, acute leucocytosis. Arsenic was administered, but the patient became worse, the breathing becoming quick and laboured, and he died on Feb. 23rd. The necropsy showed a growth of firm consistence, but containing in its interior a few cysts, in the anterior mediastinum; localised pneumonia of the right lung; the left pleura contained about a pint of clear serum. The liver was enlarged, the spleen weighed 16 oz.; to the naked eye the spleen and liver showed no deposits, but in the hilus of the liver several large soft glands were seen; the retro peritoneal and mesenteric glands were found considerably enlarged, both kidneys contained numerous white masses of varying size. Microscopic examination of the mediastinal tumour showed it to consist of small mono-nuclear round cells with adenoid tissue and firm fibrous tissue; the liver contained small deposits of round cells round the portal canals; the growths in the kidney consisted of similar round mono-nuclear cells. Numerous small thick bacilli were found in the kidney, filling capillaries and small vessels, and also in and around the capsules of the glomeruli. These bacilli stained readily with Gram's method, and differed therefore from those described by Kelsch and Vaillard in a case called by them "acute leucothymalia." The case is chiefly interesting on account of the acute course which the disease ran, and the large increase of leucocytes in the blood, which had the same character and appearance as the cells in the lympho-sarcomata, as if there had been a sudden flooding of the blood with these cells. Micro organisms have now been found by several observers in Hodgkin's disease, but their exact relation to the disease has yet to be made out.

Mr. WHITEHEAD showed three specimens of papilloma he had recently removed from three male patients. He had selected them from a considerable number on account of their illustrating in a marked degree some of the more important symptoms in bladder growths. Amongst other features they demonstrated the ordinary fact that the closer a growth was in proximity to the prostate the greater the pain usually experienced—that the size of the tumour bore no relationship with the frequency or the amount of hæmorrhage, or with the length of time symptoms had been observed.

Dr. DIXON MANN read a paper on the Elimination of Lead in cases of Chronic Lead-poisoning.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on Friday, March 6th (John Poland, F.R.C.S., President, in the chair), the President announced another list of fifty books recently presented to the library.

Cardiac Failure and its Treatment.—Professor CURNOW, M.D., read a paper on this subject. He specially reviewed the onset of cardiac failure in aortic and mitral valvular disease, pointing out that precedent to failure dilatation of the cavities of the heart must have necessarily occurred, altering the percussion dulness, and more especially the position of the apex beat. He pointed out the varying position of this sign in the different forms of valvular disease, and went on to refer to the modes of dying in these forms. The dangers of any and every kind of effort or exertion which might cause cerebral anæmia in aortic disease and of all pulmonary complications in mitral disease were insisted on. Fainting and giddiness in aortic affections, and hæmoptysis, bronchitis, and the earliest signs of dropsy in the extremities were symptoms of grave import. The various drugs used in cardiac failure were referred to, and the author advised a careful scepticism as to most of the newer ones. He much preferred digitalis to strophanthus, which he had frequently used, although it had not benefited his patients. Morphia hypodermically and small doses of brandy were much praised for the relief of insomnia and dyspnœa, and special stress was laid on treatment by food and the careful watching and relief of dyspeptic and other complications. The paper was discussed by Drs. F. T. Tayler, Cable, Moon, Hingston Fox, MacGavin, and Mr. J. Marshall.

At a meeting held on April 3rd,

The PRESIDENT exhibited a lad with deformity of the leg and foot, and arrest of growth of the tibia following separation of the lower tibial epiphysis.

Graves' Disease.—Dr. HINGSTON FOX read a paper on Graves' disease, especially with reference to cardiac conditions. After speaking of the four cardinal symptoms—rapid heart, tremor, goitre, and exophthalmos, any one or two of which may be absent in an undeveloped case—he dwelt on the mental condition found in severe cases. The emotional centres seem to be in unstable equilibrium, disturbed by slight influences, a condition allied to hysteria and to the effects of chronic alcoholism in women about the climacteric. Muscular weakness and impaired nutrition with neuralgia and the well-known eye symptoms were noted. Severe gastric crises had attended one case, the patient nearly dying from the vomiting, diarrhœa, &c., which appeared to be the effects of "bowel hurry." Dr. Hunter Mackenzie's theory of the pathology of the disease was adopted, the symptoms being regarded as an expression of a permanent condition of the emotional nervous centres, set up in the first instance by terror or fright. Darwin's graphic description of the effects of sudden fear upon animals was alluded to, the thyroid enlargement being the only important symptom of Graves' disease which is there unrepresented. The fright may have been sudden, or a repetition of small shocks. Instances were quoted in illustration of this. This theory brings us, of course, only one step nearer the true pathology. As regards the heart, beyond a hæmic murmur, and eventually dilatation, there is not usually any sign of disorder, except the rapid and irregular action. Some cases show simply tachycardia, others mainly irregularity; in some the condition is continuous, in others paroxysmal. The graphic record of one severe case in a lady aged forty-nine years was shown, extending over eight months. Here attacks of irregular and rapid heart action occurred at intervals of a few days or a week, and lasted twenty-four hours or so. For treatment numerous remedies have been advocated. The author would lay stress on (1) moral and hygienic care, in its widest sense; (2) improvement of nutrition, much milk, cod liver oil, iron; (3) of drugs, belladonna in mild and early cases, iodides in later stages, pushed fearlessly to large doses, bromides in some cases; (4) locally, the weak continuous current, following Dr. Sansom in persevering long with its use; it should be applied to the thyroid with a large plate; Leiter's cold coil also gives some promise; (5) for tracheal obstruction, tracheotomy, incision of capsule of tumour, or compression laterally, in some cases inhalation of chloroform; and lastly, division of the isthmus, often the best hope of relief.—The paper was discussed by Dr. Moon,

Dr. Cable, Dr. Horrocks, Dr. MacGavin, Dr. Fullerton, Mr. Jessett, and the President.

The Surgical Treatment of Carcinoma Uteri.—Mr. F. B. JESSETT read a paper on this subject. After briefly describing the most usual site in which the disease is found, the author described the method of treatment adopted by him in very advanced cases, by which he had been able to considerably alleviate the suffering of the patients and relieve their symptoms. He next discussed the different forms of operation, condemning caustics as dangerous and unreliable. The actual cautery and galvanic écraseur he also thought were not devoid of danger. Supra-vaginal amputation of the cervix with scissors he extolled, as being in his hands the most reliable method of removing the disease when limited to the cervical canal, and the mucous membrane of the vagina unaffected. By this method he claimed to be able to cut away the interior of the uterus to its fundus. In those cases in which the disease commences in the body of the uterus he advocated vaginal hysterectomy, so long as the uterus was freely movable and the vaginal mucous membrane unaffected.—Dr. MacGavin, Dr. Horrocks, and Dr. Moon took part in the discussion which followed.

Reviews and Notices of Books.

The Causes and Prevention of Phthisis (the Milroy Lectures for 1890). By Dr. ARTHUR RANSOME, F.R.S.

IN these lectures Dr. Ransome gives an exhaustive review of the etiological relations of pulmonary tuberculosis. The importance of the subject needs no emphasising. Tubercle is responsible for about 70,000 deaths annually in the British islands, and kills about one-third of those who die at the most useful period of life—viz., between fifteen and forty-five. Nor, even apart from the question of the value of Koch's treatment, which must remain for the present *sub judice*, can it be said that the tubercular process is so much beyond our control as to make its study unprofitable. Dr. Ransome agrees with the opinions of Niemeyer, Pollock, C. T. Williams, and others that a cure is not so rare as is still commonly believed, and quotes the pathological researches of Cruveilhier, Rogée, Bollinger, Standacker, and Harris in support of the opinion that "a very large proportion of our population suffers from tubercular disease and recovers from it." As regards preventability, Dr. Ransome believes that much has been already accomplished, and quotes the returns of the Registrar-General to show that "in the last thirty years the annual rate of mortality from phthisis has been reduced by more than one-third." We should be glad to believe that this statement is literally accurate, but we are disposed to suspect that a part of the apparent improvement is due to more careful diagnosis and the removal from the column of phthisis of cases formerly included in it.

The question of the pathology of tubercle being now a closed controversy, we need not follow Dr. Ransome in his disquisition on this head. His remarks on the affinities of tubercle are worthy of attention. He points out its analogies to chronic glanders, actinomycosis, frambœsia, Madura foot, syphilis, and leprosy. The closest affinities exist between tubercle, syphilis, and leprosy. "All these disorders are of microbic origin, they are capable of varying degrees of intensity, and possess the power of renewing their ravages after varying periods of dormancy; they produce growths that are strikingly similar in pathological characters, and they are or have been universal in their distribution, apart from conditions of climate, race, and habits of life." This last clause is too sweeping. Habits of life have a great deal to do with the genesis of tubercle, as Dr. Ransome fully admits in a subsequent lecture; they are also probably potent in the case of leprosy. Climate, again, has an influence over tubercle, as shown by the comparative infrequency of the disease in arctic and subarctic regions and at high altitudes. Dr. Ransome discusses at considerable length the affinities of tubercle and leprosy, and shows in an interesting way how many of the controversies now raging regarding the communicability, hereditary character, &c., of tubercle, have been already fought out with regard to leprosy.

Lecture II. is occupied with the topographical distribution of tubercle. The disease is world-wide, and probably no large aggregations of population are anywhere wholly exempt from its ravages. As a general rule the disease is most prevalent in proportion to the density of the population and to the number of persons engaged in unhealthy trades and occupations. A striking corroboration of the doctrine that occupation and mode of life are the most essential factors in the production of phthisis is afforded by Dr. Ransome's tables regarding the relative frequency of the disease among males and females. In large towns, where men are usually engaged in in-door trades, they suffer most, but in country districts where their avocations keep them in the fields they suffer much less than women. We cannot too emphatically teach the doctrine that a confined in-door life and the close aggregation of persons are the most fundamental of the conditions that predispose to tuberculosis. When we consult a map giving the geographical distribution of phthisis we find a comparative immunity from the disease in—(1) deserts and sparsely populated places; (2) mountain ranges and high plateaux; and (3) arctic and subarctic regions. These districts are all scantily populated, but Dr. Ransome points out "that it is not merely the scarcity of possible victims that makes the disease uncommon, for the proportion of cases to the number of inhabitants in these districts is also low, so far as we are able to judge from the imperfect data at our command." He endorses the statements of Hirsch, Lombard, Livingstone, and others as to the rarity of the disease in Nubia, Upper Egypt, Abyssinia, Central Africa, South Africa, Mesopotamia, Syria, Arabia, the interior of Australia, Tasmania, &c. We are disposed to doubt if the existing evidence on such points warrants very positive statements. Dr. Ransome's assertion that "in the interior of Australia and in Tasmania tubercle is almost unknown" is certainly open to question. Bonwick gives the rate of phthisis in Tasmania, calculated over a period of seven years, as 10·29 per 10,000 living. As regards the immunity of dwellers at high altitudes, Müller has shown that the occupations of the people in Switzerland have a much greater influence than the elevation at which they live. "Industrial *in-door* pursuits give a rate varying from 6·5 to 10·2 per cent., and one of the highest of these rates (9·8) is at an elevation of 3400 ft. to 4400 ft." We wish Dr. Ransome could give us some authoritative information regarding the strong statements that have been made in many quarters regarding the extreme rarity of phthisis in the Andes and upon the Mexican plateaux. If what has been asserted as to the practical immunity from phthisis enjoyed by the inhabitants of such large towns as Mexico, Potosi, Santa Fé de Bogota, &c., were even approximately true, the beneficial influence of altitude would be rendered very probable, but we must confess that the evidence on the subject seems to us most unsatisfactory.

As regards the influence upon soil in the production of tubercle, Dr. Ransome endorses the views of Bowditch and Buchanan—viz., that ground damp is a potent cause, and that the best results may often be obtained from a thorough system of drainage.

Dr. Ransome thinks cold is hostile to tubercle, remarking: "It is now certain that not only is there comparatively little consumption in cold climates, but that many people predisposed to the disease, or actually consumptive, derive great benefit from a sojourn in the keen, dry, cold air of Canada, or from a winter spent amidst snow and ice at

Davos Platz or the Engadine." Such facts are clear enough, but it is not so evident that the cold is the essential factor, although we are not disposed to deny that it may have some influence. But the humidity of the air and the general effect of the climate upon the habits and mode of life must also be allowed for. Dr. Ransome does not think that exposure is, *per se*, a cause of consumption, and inclines to the view that its effect is rather protective than otherwise. He discusses the influence of occupations, which he regards as predisposing to consumption in proportion as they expose those engaged in them to—(1) the inhalation of dust; (2) stooping postures at work; (3) changes of temperature; (4) bad ventilation. Statistics show that the most irritating kinds of dust are those derived from steel and flint, and that next after these come fine cuttings from bristles and the spicula of glass and porcelain. Dr. Ransome believes that the most potent of all the causes predisposing to consumption is bad ventilation and the breathing of foul air loaded with organic impurities. In this view we entirely concur, and its truth is now so well recognised that we need not reproduce the striking evidence brought forward by Dr. Ransome in its support.

As regards the influence of heredity, Dr. Ransome believes that "it has much less to do with consumption than is commonly supposed." This is too large a question to be dealt with cursorily, but it should be remembered that the influence of heredity has been denied or minimised by such good observers as Louis and Niemeyer, and that it is on every ground undesirable to do anything to augment the already excessive apprehensions that exist on this subject amongst the laity.

Dr. Ransome does not think that tuberculosis is often directly transmitted from one individual to another, and inclines to the doctrine of Koch and Cornet that the disease is mainly spread by the inhalation of dried tubercular material derived from sputum and floating in the air.

The fourth and last lecture is devoted to the subject of the prevention of phthisis. The writer discusses with sobriety and discrimination such questions as the prevention of the marriages of tuberculous individuals, the proper rearing of tuberculous children, the value of free ventilation, the choice of suitable dwellings on proper soils, the inspection of meat, and the provision of suitable hospitals or homes for phthisical invalids. On all these topics he has much to say that is worthy of attention.

Die Zuckerbildung im Thierkörper, ihr Umfang und ihre Bedeutung. Professor Dr. J. SEEGEN. Berlin: August Hirschwald. 1890.

SINCE Claude Bernard first demonstrated the glycogenic function of the liver in 1853, a great deal has been written concerning the formation of glycogen and its conversion into sugar. A compilation of the various views which have been expressed on this subject would be useful, and such is found in Dr. Seegen's work. This book, however, is by no means merely a compilation, but contains a vast amount of original work. Dr. Seegen is already well known for his researches on the amount of sugar contained in the blood of animals, and consequently his experiments and deductions will be read with great interest. The first four chapters are introductory to the general scope of the work. In the first full directions are given for the testing and quantitative examination of sugar in animal tissues and fluids; in the second we find an admirable disquisition on ferments; in the third the formation of sugar in the digestive tract (mouth, stomach, and small intestine); whilst a fourth contains a very interesting historical account of the glycogenic function of the liver, including the writings of Bernard, Pavy, Schiff, Ritter, and others. The fifth and sixth chapters are taken up with a discussion on the formation of "liver sugar." Dr. Seegen's own experiments are described minutely, and compared with those of other writers, such as Boch and Hoffmann. The chapter on the occurrence of sugar in the blood would naturally be expected to be particularly interesting, nor are we disappointed. Tables are given of the amount of sugar found in the carotid arteries, jugular veins, and portal veins of animals experimented upon whilst taking various forms of diet, the result being that the amount of sugar present is found to be almost independent of the diet. The most interesting chapters are of course those on the glycogenic function of the liver. From his own observations Dr. Seegen arrives at some very important and rather startling conclusions. He shows that the amount of sugar present in the blood can be considerably raised, even when the decomposition of glycogen is prevented, and that "the formation of sugar and disappearance of glycogen do not stand in an etiological relation to one another," and consequently that glycogen is not the source from which the liver sugar is formed. He further shows that the liver cells possess the power of decomposing peptones and fat, sugar being the principal product, but that the main source of the sugar are the fats of the food absorbed; further, that this sugar is independent of the carbo-hydrates taken.

After the perusal of these physiological experiments, we hoped to find more light thrown on the pathology and treatment of diabetes mellitus than is given in the chapter devoted to that disease. In fact, here we can discover very little that is new. Like many other authors, Dr. Seegen divides cases of diabetes mellitus into two classes. In the first class the constitutional symptoms are slightly marked, the patients look fairly healthy, and are generally of middle age; in the second class, the patients are young and the constitutional symptoms very grave. With the first class, the glycosuria disappears when sugars and carbo-hydrates are omitted from the dietary; with the second class, the nature of the food makes very little difference. Dr. Seegen ascribes the first form to the disability of the liver cells to decompose the carbo-hydrates in the ordinary manner. In the second form he considers that the whole organism is more or less affected, and that after the usual amount of sugar has been formed by the liver there is a failure to decompose it again for the use of the organism. With regard to treatment also we learn very little. In the first form dietary is everything, no sugars or carbo-hydrates should be taken; but in the second class of cases treatment of any kind is of little use. Dr. Seegen lays no stress on recommending patients to abstain from fat and all flesh food, merely repeating that the glycosuria in the more severe form is hardly affected by the nature of food taken by the patient.

Maladie de Paget. Par le Dr. LOUIS WICKHAM. Paris: G. Masson.

THIS is an excellent example of the value of the Paris system of presenting an original thesis for the doctorate. In it the author, an internat in the Hôpital St. Louis, gives a complete *résumé* of previous work in this field, and supplements this by his own observations, both clinical and pathological. The second part is especially valuable, as in it he confirms and extends the observations recently made by Darier on this subject, who discovered the presence of psorosperms or coccidia of Leuckart's class spirozoa; and he considered that the first excoriated, and then the ulcerated surface characteristic of Paget's disease of the nipple is due to the irritation excited in the tissues by the presence of these psorosperms in the epidermal cells. The subsequent cancerous development in the affected region is possibly only a result of long-continued irritation, though Dr. Wickham

is inclined to ascribe it to a more direct action of the parasites.

After a few preliminary observations the author gives an abstract of sixteen previously published, followed by six unpublished cases, the latter derived from the various cliniques in the Hôpital St. Louis. From these he draws up a general description of the clinical features and course of the disease, showing amongst other things that two out of the twenty-three cases occurred in men, one in the male breast and one in the scrotum. This last is valuable, as affording a proof that it is not a disease of the breast only.

The histological description occupies Part II. Commencing with a review of antecedent observations, the author goes on to relate his own, made on specimens from the six unpublished cases and from the scrotal case recorded by Dr. Crocker. In all Dr. Wickham found psorosperms in abundance, contained in the epithelial cells of the epidermis or glands, and he ascribes to these parasites a primary importance. The discussion of the pathogeny of the disease occupies Part III. The treatment suggested by this theory is of course an antiparasitic one, but no opportunity for thoroughly testing it has occurred, though in one case, in which, owing to the perversity of the patient, it was imperfectly carried out, Darier obtained sufficient improvement to afford hope for a successful result in the pre-cancerous stage, if the treatment was efficiently managed.

Well-executed coloured drawings, both of the clinical and microscopical appearances, illustrate the work, and there is a bibliography up to date. The work is in every way a creditable one to the new school of dermatology in France.

Medical and Surgical Memoirs. By JOSEPH JONES, M.D. Vol. III. New Orleans. 1890.

THE author of these memoirs, which embrace an infinite variety of topics concerning the etiology, geographical distribution, nature, and treatment of diseases, must certainly be regarded as one of the most industrious and prolific of medical writers. From time to time he has issued under his personal supervision volumes of his collected writings, which contain an abundance of material gathered from his own researches and observations, extending over a period of nearly forty years. And yet, whilst these bulky tomes speak strongly in favour of his energy and industry, they are so overladen with facts, so copious in detail, and so disconnected that we fear they will be passed over in favour of more systematised and less laborious work.

The present volume (whose bulk has necessitated its issue in two parts, each of great dimensions) consists in the agglomeration of many monographs and essays bearing on the sanitary and economic conditions of the State of Louisiana; on the subject of quarantine, and the measures to prevent the dissemination of infectious diseases; on vaccination (including reprints of the memoirs of Jenner, Pearson, and Woodville), of which an elaborate and detailed history is given; several public addresses of great prolixity and profundity dealing with subjects of epidemiology, of education, and of the treatment of the insane, besides special memoirs upon teratology, and some other physiological topics. Moreover, there are interpolated a profusion of most elaborate statistical tables relating to the health, commerce, and climatology of New Orleans, and maps and charts of the Mississippi delta. When we call to mind his previous volumes—almost as bulky as these—and the subjects of which they treated, we cannot forbear the hope that the learned author will one day be enabled to present the world with some less diffuse and more systematic treatise on some of the many subjects to which he has given so much thought and attention. For in their present form these memoirs are of comparatively small service to the general body of the profession. They will find a place on the shelves of medical libraries, and be occasionally referred to by the statistician or the epidemiologist; but their very exhaustive and elaborate character, and the general style in which they are compiled, render it most difficult to extract therefrom material facts. Added to which the lack of an index is of itself enough to daunt the spirit of the inquirer. The monograph upon Vaccination, which occupies upwards of 500 closely printed pages, is especially valuable for the attention given to the subjects of spurious vaccination and vaccinal syphilis; and here the author's experience in the Confederate army is put to good use, whilst his literary studies are wide and ample.

New Invention.

SINGLETON'S AMBULANCE CHAIR.

THIS strikes us as a simple and ingenious appliance for raising and transporting injured persons from situations such as ships' holds, engine-rooms, docks, pit shafts, coal bunkers, and other places difficult of access to the ordinary ambulance stretchers.

The chair is made of sail cloth, stiffened at the back with leather and provided at the sides with fixed leather straps and buckles for securing a disabled person in it. There are brass eyelet holes at the front and back to which iron clip-hooks and rope slings are connected, surmounted above by an iron ring, to which the rope slings are joined. By fastening a rope to this ring, or, better, by means of a block and tackle, the chair can be raised or lowered with a person in it in the most convenient and comfortable positions. By means of a guide rope attached to the chair, it is easy to prevent it from coming in contact with any obstacles or projections when used. When raised or lowered the disabled person need not be removed from the chair, but may be at once placed on a stretcher; or if one be not accessible, a wounded or sick man may be conveniently moved to any distance by simply putting a pole or handspike through the ring or under the slings, with an individual at either end of the pole to carry him. The apparatus is simple in construction, very portable, not at all likely to get out of order, and is consequently likely to prove, as it has already proved in practice, extremely useful in places and under circumstances where other means of removal and transport could not be applied. It is the invention of Messrs. Singleton, two workmen of Jarrow-on-Tyne, who are both medallionists of St. John Ambulance Association and officials of the Jarrow Ambulance Corps. We can recommend it as a safe and easy means of transport, and well adapted for the requirements of large engineering and manufacturing works.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—At the seventy-second annual meeting of the governors of this charity, the resignation was received of Dr. William Hutchison, who had been for a long period one of the honorary medical officers of the institution. In the committee's report for 1890 the circumstance is thus alluded to:—"The committee desire to place on record their sense of the value of the honorary services for many years rendered by Dr. Hutchison, who, having left the town, has placed his resignation in their hands." At the same meeting Dr. Hutchison's son, Mr. William Hutchison, L.D.S., was appointed honorary dental surgeon to the institution.

THE LANCET.

LONDON: SATURDAY, APRIL 18, 1891.

THE London Public Health Bills have been read a second time in the House of Commons, and referred to the Standing Committee on Law. It is probable that the same course will be adopted as in the case of the Bills on the Housing of the Working Classes—that is to say, the Amendment Bill will be considered first, and the Consolidation Bill afterwards, and then the two Bills will be consolidated.

The clauses have been so carefully drawn that it is not probable any extensive alterations will be required. Nevertheless questions will be raised upon them, for already there is evidence that the provisions of the Bills have not been fully understood. Thus in our issue of last week a correspondent, writing under the *nom de plume* of "Fairplay," asks "on what ground is the district medical officer singled out to be debarred by law from pursuing that branch of his profession for which his public position particularly fits him?"—or, in other words, why is the provision repealed which specifies that the Poor-law medical officer may be appointed a medical officer of health? The answer probably is that the provision is superfluous. There is, so far as we know, no statutory power prohibiting him holding the latter office, and so long as he is qualified in accordance with the requirements of the Public Health Act and of the Order of the Local Government Board, it is within the discretion of any sanitary authority to appoint him, and of the Local Government Board to confirm the appointment.

The position which Mr. RITCHIE has assigned to the London County Council in the health administration of London was commented on in the House of Commons by two members representing metropolitan constituencies. But a little consideration will doubtless show that the course Mr. RITCHIE has adopted is inevitable if London is to be properly governed. There is an absolute necessity that a central power should exist for the purposes of the sanitary requirements of London as a whole, and seeing that maladministration in one district in London may prejudicially affect the whole county, the right of intervention must be given to the central authority. Not long ago we commented on the activity of the sanitary authority of St. Olave's in stamping out an outbreak of typhus fever. If this outbreak had been less energetically dealt with other districts would probably have been affected, and as a matter of fact the disease did spread to the neighbouring district. It cannot be held that the administration of one district does not concern others. London, great as it is, is but one town. The only question that remains, therefore, is whether this power shall be exercised by an elected body like the County Council or by a staff specially appointed by a Government department. The County Council has already important health duties under the Housing of the Working Classes and other Acts, and is empowered to appoint a medical officer of health for the whole county. To add to the health duties of this body is, we believe, the only course open to the Government, and the welfare of the metropolis necessitates that this should be done completely.

Mr. RITCHIE has borne witness to the assistance the Council has given him in the preparation of the Bills, and the useful work done by Captain JAMES, the late chairman of its Sanitary Committee, and by other members of the Council, has been the subject of favourable comment in the press. There is therefore no doubt that the Council is fully impressed with the importance of efficiently performing any public health duties imposed upon it, and London will gain by the watchfulness the Council will exercise over the proceedings of the forty-one authorities in the administrative county. That there should be a temporary feeling of apprehension on the part of those bodies who wish to maintain a position of independence is not unnatural; but we have no hesitation in saying we are convinced this feeling will pass away when there has been experience of the new conditions.

There are a few points in the Amendment Bill which we think should be further considered. To one of these we have already referred on a previous occasion—viz., the proposal to send to every elementary school manager the returns of notified cases of infectious disease prepared by the Metropolitan Asylums Board. If this intention be carried out, we fear that it may be the beginning of the end of notification. That the Notification of Infectious Diseases Act has hitherto worked with very little friction is, we believe, due to the circumstance that the information which has been given has been regarded as confidential. We are not at all prepared to say that there may not be advantage in providing that other public bodies than the County Council shall receive these returns, and that such bodies would not be able to use the information given in the interest of the public. But to enact a law requiring these returns to be sent broadcast over the metropolis, without any experience as to the effect of such distribution, is, we think, fraught with danger to the future successful working of the Notification Act. We would gladly see this provision mended, giving full discretion either to the Managers to determine as to whom the returns shall be sent, or to some other authority having public health functions. It would then be found possible to modify or cancel any arrangement found to work badly without the necessity of going to Parliament.

A restriction to be placed in future on the medical officers of health who will be appointed after the passing of the Act demands comment. These officers, it is provided, are to reside within the boundaries or within a mile of the boundaries of their districts. With regard to this, we would point out that a feeling is undoubtedly growing, and especially since the passing of the Notification Act, that public health duties militate against private professional practice; and it is not uncommon for sanitary authorities to prohibit their medical officers of health from thus practising. We may conveniently cite the case of Chelsea, a district in which this course has been taken, as illustrative of our argument. A small salary is offered, too small to encourage a man of any standing to devote the whole of his time to the duties of the office. As he is not now subject to this restriction as to residence,

he may probably add to his income by work of more than one kind, but there are few who would be able to do this and to reside in Chelsea or its immediate neighbourhood. We fear that this restriction is only generally practicable when the whole of the officer's time is engaged, and the amount of his salary is based upon such an arrangement.

The Standing Committee on Law will doubtless find other points which can with advantage be modified, but with the Bills as a whole we must express our full satisfaction, as well as our conviction that Mr. RITCHIE deserves the thanks of all for the sincere effort he has made to give London a thoroughly effective health administration.

IT is now some years since any official report has been issued in this country with regard to cerebro-spinal meningitis. Severe outbreaks of that disease occurred in the villages of the Lower Vistula in 1864–65, and Dr. BURDON SANDERSON prepared a lengthy report on the subject, which was published in the report of the then Medical Officer to the Privy Council; for a number of subsequent years, however, the subject did not arouse much attention in England. But there would appear to be some evidence to show that since 1885 the disease is becoming more recognised, if not more common, in different parts of the world. In the seventh volume of the new issue of the Transactions of the Epidemiological Society of London there is an excellent account, by Colonial Surgeon BOLTON C. CORNEY, of a serious epidemic of that disease in the Fiji Islands during 1885, and this was followed during 1887–88 by a diffused but somewhat widely spread prevalence of the disease in the basin of the Mediterranean. This latter prevalence, which was reported on by Dr. THORNE THORNE in the account of the proceedings of the Medical Department of the Local Government Board for 1888, affected a number of places from Cyprus and Asia Minor at the eastern, to Sardinia near the western, extremity of that basin.

As regards this country, only scattered cases tend to occur year by year, if we may judge by a few fatal attacks annually reported by the Registrar-General. They are very generally distributed over a number of different counties and places, and they exhibit no disposition to localise themselves. They have also but rarely been subject to any detailed investigation as to their causes or distribution. But, as pointed out by the Medical Officer of the Local Government Board in 1888, the mere fact that such occurrences do periodically take place affords a reason for watchfulness on the part of sanitary authorities, their officers, and others. And, as if to prove the need for such warning, we now learn that there has been some localised prevalence of this fever in certain of the eastern counties.

Reporting on the subject, Dr. BRUCE LOW[1] gives some general description of the sanitary circumstances of a number of villages and places in Suffolk, Norfolk, Essex, and Lincolnshire, where cases occurred; he also states the symptoms and clinical appearances met with. The attacks at Oakley in Suffolk, where about a dozen cases occurred, may be taken as fairly typical of the rest. The patient was as a rule taken ill suddenly with vomiting, vertigo, headache, and great prostration. Next day, or even later, there were pain and stiffness in the neck and back, passing sooner or later into complete retraction of the head, in some cases amounting to opisthotonos. Early in the illness there was great drowsiness; in young children fits of screaming occurred when they were awakened. There was rise in temperature, which ranged from 100° to 103° F., delirium following in most cases. Some suffered from conjunctivitis, others herpes of the mouth, and there was usually great sensitiveness of the skin. All, or nearly all, had more or less loss of power in the lower limbs. Emaciation was rapid, convalescence slow, the pulse was sometimes noticed to be dicrotic, and the respiration was hurried or interrupted. Some cases exhibited neurotic sequelæ, and a rash was occasionally seen. In a typical case of death the patient became drowsy and comatose, and died forty-eight hours after seizure; post mortem the brain presented great congestion of the whole of the membranes, the cerebral venous system was gorged with blood, and both on the upper surface and at the base there was evidence of lymph having been thrown out. There was much serum in the ventricles, and the substance of the brain was soft. As regards the spinal cord, the principal lesion observed indicated much congestion of the membranes in the upper dorsal region.

There appeared to be nothing worthy of much note to distinguish the sanitary surroundings of persons attacked from those who escaped, and there were no indications of privation such as have at times been associated with this disease elsewhere. Food-supplies, and notably grain foods, were inquired into without result, and apart from the fact that two and even three attacks occurred in some households, nothing seemed indicated as to method or cause of spread. Some twenty-four cases in all came under observation; but apart from these there have been occurrences of disease which it had been difficult at the time to explain, and some medical practitioners are inclined to agree with Dr. BRUCE LOW that in a number of instances the disease had prevailed in a form which had been unrecognised.

Taking the four counties referred to in connexion with this prevalence, it would appear that only eleven deaths have been registered from cerebro-spinal meningitis during the five years 1885–9, nine of these having occurred during the last three years. As regards England and Wales as a whole, 132 such deaths occurred during the quinquennium referred to. On the whole, there seem grounds for believing that in England, as elsewhere, the fatality varies much; that a number of mild attacks may only be recognised on the occurrence of one or more of the type that has been termed "foudroyante"; and that the disease is not so exceptional in this country as the mortality statistics seem to indicate. This view is taken by Dr. BRUCE LOW, who says that fatal attacks are probably certified under the name of "fever," tubercular meningitis, or convulsions, whilst non-fatal attacks are looked upon as sunstroke, "violent cold," and similar ailments. Obviously, there is need for watchfulness in this respect.

[1] Official Report to the Local Government Board, February, 1891. Eyre and Spottiswoode, London; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin; price 4d.

THE debate in the House of Commons upon the opium traffic has brought the question one step further than usual. Sir J. PEASE has succeeded in inducing the House to

recognise by its vote that the system by which the Indian opium revenue is raised is morally indefensible. The question was approached from many different sides, and a semblance of resistance was made, although from the first it was evident that in point of argument there was no real defence. The charge is that while opium should be treated and used as a drug, as a nation we must admit that for the sake of pecuniary gain we have promoted, and directly encouraged, the growth of the poppy and the sale of opium for other purposes. Historical assertions were made calculated to diminish the self-esteem of the British subject, but the accuracy of many of these was disputed. Arguments were adduced from an economical standpoint, but they mainly resolved themselves into fears of the possible bankruptcy of India if any restrictions were placed upon the revenue from opium. From the first the defenders of the opium traffic appeared faint-hearted, scarcely in earnest, and almost indifferent, and, unfortunately for their cause, they seemed not to have agreed upon any line of defence more definite or more moral than that of loss of revenue. Apart from this idea, the lack of logic characterising the speeches was extremely amusing, and doubtless contributed largely to the resulting division.

The House decided against the morality of the opium traffic after a purely academic discussion. At the same time, a seemingly uncomfortable impression remains that the trade is declining, and that therefore we can afford to be moral, even if morality is not forced upon us. The Chinese have acquired the craving for this drug, and now a large part of the country is under opium cultivation. In spite of legal restrictions, contraband supplies are passing overland into the seaports, while the quantity imported from India is declining. In the Presidency of Bengal there are 100,000 acres less of land under poppy cultivation than there were ten years ago, while the number of chests of opium manufactured in British India is now only 4800, as against 5606. This is not as satisfactory as it appears, since it merely indicates that the Chinese are growing their own opium, not that the amount consumed is less.

Regarded from a medical aspect, there can be no real difference of opinion about the opium traffic and its baneful influence. Two speakers only attempted its defence, but the defence was weak, and hinged mainly on the comparison of the evils resulting from alcohol and opium. Those of the former were graphically described—the ruin of the liver, the heart, and the brain, and the ultimate miserable death from the secondary results; while a point was made of the fact that "the opium smoker might be quite useless, but at any rate he was not mischievous; he did not beat his wife." In the same light bantering spirit, which is surely out of place in dealing with such a serious question, another speaker said if "COLERIDGE had taken spirits instead of opium, and if he had suffered from delirium tremens, the Confession would have been ten times worse, and it was lucky that COLERIDGE took opium and not spirits." And then a little later, in the heat of debate, forgetting that he had been abusing alcohol, the speaker described the cultivation in Bengal, and the care taken to make sure that the opium was not distributed among the people. "The people had spirits, and that was thought sufficient for them without opium, and therefore we made sure that the opium went direct out of the country. It was for the physical welfare of the people that the system was carried out." After all, there was practically no defence beyond the plea that the abandonment of the revenue would make India bankrupt. With such questions we have no concern. Whether the revenue from opium is increasing, or whether, as stated, it has fallen from 8,451,000 rupees in 1880–81 to 3,000,000 rupees, matters little from a medical standpoint. The question is merely whether this drug, which has been called the gift of GOD to man, is being legitimately employed purely for medicinal purposes. Now, although reference was made to its tonic effects in small doses in preventing ague and its influence in lung and bronchial affections, those who took a serious view of the question declined to pretend or to argue that the large revenue of India was derived from opium employed for any of these purposes. There appeared to be a general feeling that the less said the better about the destination of the opium and the purposes of its employment. In this country the sale of opium and its preparations is surrounded with every possible precaution, clearly for the "physical welfare of the people." The morality of adopting a different code of ethics for the native races under British rule requires no discussion. Sir J. PEASE deserves hearty congratulations upon the success that has at last attended his efforts to induce the House to urge the Indian Government to take measures to restrict the supply to the legitimate demand for medicinal purposes. The resolution has not yet been made an order of the day, since the leader of the House of Commons thinks it requires much further consideration before it is accepted. Should further discussion arise, we trust it may be conducted upon broad principles. The question should be strictly limited to the amount of encouragement at present afforded to the opium habit, and not allowed to wander into futile comparisons with alcoholic intemperance. The task of dealing with the one evil at a time will sufficiently tax the powers of legislation.

THE Register of Trained Nurses, which has been in course of preparation for a period of three years past, is now given to the public, and its merits can now be discussed not only from the theoretical point of view, but also in the light of the plan which it proves actually capable of vindicating for itself. It may be hoped, therefore, that the discussion which has already arisen concerning its utility, and which will certainly be stimulated by the appearance of the first annual volume, will gain in point, and that the objects which the promoters of the scheme have in view will now become clearer to such of their critics as have heretofore attacked them with more energy than appreciation. It is no disparagement of the good work already done by the Registration Board to say that intelligent criticism may be very usefully employed upon their labours. The volume now before us contains about two thousand names of nurses, all of whom have received more or less training, and most of whom hold certificates such as will command general respect. That the registration authorities should not at first be very exacting as to qualifications was only a thing to be expected. The fact could not have been otherwise; nor is it even desirable that it should. The object of the Register is to

identify trained nurses and authenticate their credentials. If in some cases the credentials themselves amount to a guarantee of less than could be desired, the remedy for that should be sought in improved training first, and in restricted registration only after such an interval as shall have afforded to the improved facilities of training a reasonable opportunity of bearing fruit. One very important result of bringing together in one view the various certificates and qualifications which nurses rely upon to avouch their competency will probably be that the inferiority of imperfect methods of training will be more clearly perceived by the nurses themselves and those who supervise their education, and improvements will in the result be introduced for the correction of these defects. With this object it would, we think, be in itself a good thing if the Register were supplemented by some explanation as to the effect of the various certificates placed upon it. Whether it is practicable to add such a feature we cannot tell. Its value is obvious, and we doubt not that the suggestion, if it has not already been considered, will receive attention at the hands of the Registration Board. But, even while putting it forward, we perceive that there would be serious difficulties to be surmounted, and are prepared to learn that for the present at least its adoption would not be wise. Another suggestion that occurs to us upon an examination of the present volume, and one which would probably be with less difficulty carried into effect, would be the addition to the present alphabetical list of names of a list arranged according to localities. The primary object of the Register is no doubt what we have above stated—that is to say, the identification of trained nurses and the authentication of their claims to professional qualifications. But, incidentally, it would often be a great advantage to have a ready means of ascertaining the address of a trained nurse near at hand. Nurses are usually wanted in emergency, and often the most important of all qualifications is the being within easy call. A local list would greatly facilitate an inquiry directed to this point, and we hope to see it made a feature of future issues of the Register.

Annotations.

"Ne quid nimis."

OPEN SPACES ABOUT HOUSES.

IN the debate on the second reading of the London Public Health Bills, Mr. Stuart urged that the London County Council should possess the same power of making by-laws as to open spaces about houses as was enjoyed by every urban authority in England and Wales, and referred to a recent article in THE LANCET in which this necessity was pointed out. The Bills now before Parliament do not contain these provisions, but this circumstance is to be explained by the fact that whereas urban authorities generally possess these powers under a section of the Public Health Act of 1875 which authorises them to make by-laws for new streets and buildings, the London building provisions are not incorporated in the Public Health Bills. The evident interest Mr. Ritchie takes in municipal government, and the zeal he has shown in consolidating and amending the Housing of the Working Classes and the Public Health Acts, create the hope that it is his intention to consolidate and amend the Building and Metropolis Local Management Acts. There would then be ample opportunity for incorporating the provisions as to open space to which Mr. Stuart referred. For our own part we think it matter of little importance whether London is to be dealt with in this respect by by-laws or by statute. The question is really whether Parliament or the London County Council would be prepared to make the most adequate provision. The Council at the present time is so fully alive to the necessity of air space within the metropolis that there is no doubt the subject would be dealt with liberally. Whether the next Council will be equally appreciative of this health necessity in London can only be seen after the next election in January. On this point we are quite prepared to trust Mr. Ritchie, who has in his own department at Whitehall all the experience which would enable him to frame an admirable measure if he intended the details to be settled by Parliament. If our hopes are well founded, we may at no distant time see London in one way or the other given all necessary opportunity for preventing the crowding of houses, and for bringing to an end the preparation of areas for improvement schemes, to which the London County Council now has to resort, at enormous cost to the ratepayers.

HINTS TO BRITISH TOURISTS AND RESIDENTS IN GERMANY.

THERE has just been published in the form of a Foreign Office paper, which may be procured for the modest sum of one penny, an exceedingly useful collection of suggestions made for the benefit of British travellers and residents in Germany, which all who contemplate visiting the Fatherland would do well to peruse. The writer is Acting Consul General Goldbeck, who has been led by his experience of his office to believe, we doubt not with good reason, that he will be rendering a valuable service to those who are in a sense his special charge by pointing out to them what are the unpleasantnesses to which they are most readily exposed, and how they may best be avoided. He runs over in a cursory way such topics as passports, the traveller's supply of money, Customs' regulations, disputes with cabdrivers, tradespeople or lodging-house keepers, taxes and the like, and he gives some valuable hints as to the selection of a place of residence. Many hundreds of Englishmen will shortly be betaking themselves to the region within which the writer of this paper exercises his representative office, and most of them will certainly find their advantage in first acquainting themselves with the rules which are here submitted for their adoption and observance. Not the least valuable of the acting consul's hints is that those who know how to set about it will easily find among the Germans the boon of what our neighbours themselves call "English comfort."

POLYNEURITIS OR BERI-BERI AMONG FISHERMEN.

FROM time to time during the last few years cases have been reported in American journals which in their clinical symptoms are closely analogous to what has until recently been considered to be a disease of the tropics—viz., beri-beri. In an important article in the *Journal of Nervous and Mental Diseases*, Dr. Putnam of Boston, taking as his text a case which had recently come under his observation, discusses the nature and etiology of this condition at some length. The patient was a man of thirty-nine, the mate of a vessel just arrived from the Grand Banks, who had enjoyed good health until two weeks before he was seen. He had then experienced pain on the inner surface of the thighs. The following day he was sick, and the legs

and thighs became swollen, and he was obliged to keep in his bunk for several days, while a steady diminution of strength took place in his legs and feet. On examination he was pale, had difficulty in getting his coat on and off, and walked with a waddling gait. There was slight toe-drop, and difficulty in standing with his eyes closed. There was a feeling of numbness in the legs, but no marked impairment of sensibility. The inner surfaces of the thighs and the calves were tender, and there was distinct pitting on pressure along the shins. The knee-jerk was lost. On inquiring more closely into the conditions under which the illness commenced, it was found that for nearly six months before his illness came on he had been on a vessel engaged in fishing off the Grand Banks. The vessel was badly provisioned, and the voyage had been unduly protracted, so that for a time the rations consisted only of molasses, fried pork, and pancakes, with bad water. Nine or ten men besides the patient were attacked with illness, the prominent symptoms being weakness and swelling of the legs, and one of them, afterwards seen by Dr. Putnam at the Marine Hospital, presented the typical symptoms of multiple neuritis, well-marked ankle- and wrist-drop, impairment of sensibility in hands and feet, with tenderness on deep pressure of the muscles. Several other cases were afterwards seen, and by means of inquiries among medical men, information was obtained of similar symptoms in numerous others exposed to the same conditions, and there seems to be little reason to doubt that the disease has a strong analogy to scurvy and to beri-beri, and that bad or insufficient food and water are important factors in its causation.

DISTRIBUTION OF DAIRY PRODUCE.

THE Earl of Meath, in an effective paper in the current number of the *Nineteenth Century*, argues for the provision in London and our large towns of improved facilities for the distribution of dairy produce. He finds a text in a description which he gives of the great dairy of Herr Bolle at Berlin, from which quantities, varying with the season from 35,000 litres to 50,000 litres of milk in its natural form, or under the equivalent of milk products, are daily distributed throughout the city. The salient feature of the system established and carried on under the supervision of Herr Bolle is that the most exact care is taken to prevent any adulteration or alteration of the substances sold while in the hands of the subordinate officials whose duty it is to deliver at the customer's door. Thus the milk is sent out from the central repository in locked cans from which it is measured into the customers' receptacles, an arrangement which doubtless effectually prevents the watering of the milk. Equally scrupulous is the care taken to ensure the purity of the other produce, a result which is the more easily attained by reason of the vast scale upon which the operations are carried on. It appears, however, that the beginnings of this large enterprise are very recent, and that ten years ago it originated in a very small dairy business. Indications of a more or less similar movement among ourselves are not far to seek, for of late years there has been a notable improvement in respect of cleanliness of appearance in the dairies of the metropolis. Nor is the improvement a matter of appearance alone. The exposure in THE LANCET of adulterations, the work of inspectors, and the growth of an enlightened public opinion have done much to carry reform into the heart of the trade in foods, and in milk particularly. Still, there is much yet to be done, and though it would probably be rash to expect that the introduction of Herr Bolle's methods into London, for example, would be followed by success commensurate with that which has attended them in Berlin, we hope that the suggestions made by the Earl of Meath will not be wholly without fruit, and doubt not that they are capable of being not only usefully but also successfully carried into practice.

INFECTION THROUGH THE SOIL.

THE question is often raised whether there is any direct or indirect proof of the infectivity of the bodies of those dying from specific fevers, or whether the soil of graveyards may become really dangerously contaminated thereby; but it is also one to which comparatively little attention has been given by the experimentalist. One aspect of the matter has been lately studied by Dr. Justyn Karlinski of Konjica, Herzegovina; in a series of experiments (*Centralblatt f. Bakteriol.*, ix., 13) undertaken to determine whether the organs of the body undergo any change in temperature during the natural process of decomposition after burial in the earth, and especially whether any differences in this regard are to be met with in the case of infected subjects. His results show that invariably the putrefactive process is accompanied by a rise of temperature above that of the circumjacent soil; and also that this rise in temperature is markedly higher when the parts examined have been taken from the bodies of men or animals who have succumbed to infective diseases than it is in the case of healthy bodies. He further examined into the question of the survival of the pathogenic bacteria in the affected parts, and states that the typhoid bacilli may retain their vitality in the decomposing spleen for three months, and are only completely annihilated by rapid putrefaction and the presence of a large number of the bacteria of putrefaction. Dr. Karlinski says that he had previously shown that typhoid bacilli could retain their vitality for a period of five months in soil, but that if the earth were thoroughly saturated with rain water they were destroyed in from seven to fourteen days. The part played by the soil in the origin of epidemics should not, he thinks, be under-estimated, since typhoid bacilli can only exist in water a comparatively short time.

ARMY MEDICAL SERVICE.

WE have dealt so recently with the present position of the service in connexion with the late correspondence between Sir Andrew Clark and Mr. Stanhope thereon, that there is no need for further remarks at the present time; but it may interest medical officers serving at home and in the colonies to know that in India a lively correspondence has been taking place in the *Pioneer* and other journals regarding this subject, and especially regarding army medical officers' rank. The discussion has reference, however, to the first, and not the last, portion of the correspondence between the War Office and Sir Andrew Clark.

CREOLIN IN DENTAL PRACTICE.

AN American dental journal publishes a communication by Dr. Wm. H. Potter on Creolin as an Antiseptic. Creolin consists of a mixture of the sodium salts of some resinous acids with the part of oil of tar known as "irod oil." It is made from English pit-coal by distillation, and is of a brownish-black colour and syrupy consistence. It is not a definite chemical compound, but a mixture of various ingredients. It is insoluble in water, but quickly forms with it a brownish or milky emulsion. It also mixes with oil and glycerine, and is soluble in absolute alcohol, chloroform, and ether. Esmarch's experiments seem to prove that it is a more powerful germicide than carbolic acid, and in quantities likely to be used is non-toxic. It is a reliable hæmostatic and a powerful deodorant, and does not roughen the hands or injure instruments. Its disadvan-

tages are that the emulsion, besides being opaque, is apt to become sticky after being allowed to stand for any length of time, and so clings to instruments. For dental purposes it is suggested that it may be of use in various ways. First, as a mouth wash, one or two drops of creolin added to half a tumbler of water forms an emulsion pleasant to the taste, a powerful deodorant, a reliable germicide and antacid. A second sphere of usefulness is in the treatment of fistulous tracts or any suppurating surface. In such cases it tends to diminish secretion, and induce a healthy state of the tissues. It is also a good drug for root canals, and will quickly deodorise a dead pulp. A minor use to which creolin may be put is that of taking rust off instruments, to accomplish which the full strength should be used, and the instrument rubbed with a rough cloth.

DISEASE OF THE CAUDA EQUINA.

BECHTEREW has recently met with a case in which he has diagnosed affection of the conus medullaris and the cauda equina. An abstract is given in the *Neurologisches Centralblatt*, No. 5, 1891. For some weeks before the patient came under observation he had suffered from a gradually increasing weakness in the legs, together with urinary trouble and weakness. On examination there was loss of sensibility with regard to tactile and also to painful impressions on the penis, scrotum, perineum, and gluteal region. There was also similar impairment on the inner and posterior aspects of the thighs. There was much muscular weakness, so that the patient could not walk without the help of a stick. The knee-jerk was normal, and of the superficial reflexes none were lost with the exception of the gluteal. There were incontinence of urine and obstinate constipation, although at times there was involuntary defecation. There was marked tenderness over the sacrum. The author concludes that the case is one of lesion of the conus medullaris and cauda equina, and draws attention to the correspondence of the clinical symptoms with those produced experimentally in dogs by section of the cauda equina.

THE SANITATION OF TUNIS.

SINCE its annexation by the French ten years ago Tunis has taken a new departure. The city is being enlarged, reconstructed, and, not least important, rehabilitated in a sanitary sense. Hitherto its death-rate has been high, and the offensive odours from which even its most fashionable quarter is seldom free indicate the chief cause of its sickness and mortality. Typhoid fever is almost endemic, and though the winter season, when the city is most frequented by foreigners, minimises the death-rate from this source, still the disease constitutes an ever-present danger. The Lac de Tunis, or El Bahira, as the land-locked sheet of water between Tunis and its port Goletta is called, has for forty centuries been the receptacle of all the drainage and refuse of the city, insomuch that its depth has gradually diminished to little more than a metre in its deepest part, and its navigation is impossible for any but the lightest craft. The prevailing winds lie between the north and east, and a glance at the map will make it at once intelligible how the air currents between those two points, in passing over that spacious cesspool, are fraught with foul smells, and as a consequence with lowered vitality, disease, and death. From a report now before us on "L'Assainissement de Tunis," we learn that elaborate steps are immediately to be taken for the suppression of this nuisance. A "grand collecteur"—a sort of cloaca maxima—destined to reunite the whole drainage of the city in a common stream will carry the sewage below the level of the Lac to a great reservoir constructed *ad hoc*, whence it will be conveyed by special steam pumps and pipes to a distant point of discharge in the Lac itself. This, however, is only provisional, the immediate object being to purge the air of the odours which, in a north-easterly wind, make the much-frequented promenade of the Avenue de la Marine a far from salubrious or pleasant resort. The next and more important step will be to divert the sewage from the Lac and carry it out to the fields which surround the city on its three sides. The fertility of these, already great, will be enhanced tenfold by this accession of their natural manure, and the increased fecundity of the Tunisian market gardens, famous for the quality and abundance of their kitchen produce, will be a new source of wealth to the neighbourhood. Another project for the development of the attractions of Tunis is the construction of a sanatorium at Carthage, which will enable even the invalid to avail himself in winter of the advantages of that ideal site, sheltered as it is from the north and interesting to all time for its mighty past, of which the relics are being steadily brought to light by Cardinal Lavigerie and the Abbé de Lattre. The sanatorium in winter will be transformed, in the hot season, into a resort for the seaside sojourner, drawn thither by the cool refreshing breeze and the admirable bathing facilities. We hope, however, French enterprise will stop there, and not assume the developments it is prone to take at other frequented points of the Mediterranean seaboard—the establishment of casinos and gambling saloons. That, indeed, would be the ignoblest fate that has yet befallen the city of Dido.

THE "MEDICAL HAT" QUESTION AGAIN!

IN our issue of Feb. 21st we took occasion to notice a proposal that a hat of particular make should be used as a distinguishing mark of medical practitioners. It now appears that the desire for peculiarity has not been limited to this country. As if by a side wind of suggestion, medical opinion in Berlin has, it is said, arrived at nearly the same point. There is a difference, however, and a material one. This time it is not the doctor, but his coachman, who is about to undergo alteration. In future a white hat will be for him like the fireman's helmet—a sign of urgency before which ordinary traffic will be expected to give way. The idea, it must be allowed, gives promise of some practical advantage, and many busy practitioners would be only too well pleased if by so simple a device they could scatter the obstructions which in town practice render the daily round a protracted and a devious task. By the sick whom they visit it should be hailed as an earnest of speedy relief. If, therefore, any suitable distinction commends itself to professional taste, no serious objection, we presume, could be urged against it. There would still remain the uncertainty whether the charioteers of other interests would be willing to admit the claim of medicine to precedence on the road. On the whole, therefore, we should prefer, before advising the adoption of any scheme of hat reform, to watch the progress of the new departure in the German capital. The matter is not so urgent but that it may be still further considered.

TREATMENT OF PNEUMONIA WITH LARGE DOSES OF DIGITALIS.

AT the last International Medical Congress Professor Petresco of Bucharest read a paper on this subject. He makes an infusion of sixty grains of powdered digitalis leaves to six ounces of water, a little syrup of orange being added to sweeten it. A tablespoonful of this mixture is given every half hour. In spite of the largeness of the dose, he says that he has never met with a case of poisoning, and maintains that these doses are therapeutic, and not toxic. The best results are obtained in fibrinous or croupous pneumonia. The author states that if used in the way he describes digitalis will frequently cut

short an attack of true croupous pneumonia. In from twenty-four to forty-eight hours after taking the drug a certain fall of temperature occurred, from 104° F. to 98° F.; this being accompanied by a decrease in the frequency of the pulse and respiration. The digestive tract was little affected. The most marked changes were noticed in the pulse, which became slow, full, and of high tension. The conclusions to which Professor Petresco has come are published in the *Therapeutische Monatshefte*, Feb. 1891. They are as follows: 1. When given in therapeutic doses digitalis has a direct antiphlogistic action. 2. The dose may be raised as high as from 60 to 120 grains of the leaves given as an infusion within twenty-four hours. 3. This treatment may be continued for from two to four days if the severity of the case requires it. 4. When improvement takes place in the circulation and respiration, this is speedily followed by a disappearance of all local signs and symptoms. 5. The success of this treatment is confirmed by the statistics. In an elaborate table of statistics Professor Petresco shows the superiority of digitalis over the other methods. Thus the highest mortality in pneumonia (34·5 per cent.) occurred when bleeding was practised, and the lowest (3 per cent.) when tonics, alcohol, &c., were employed. When digitalis, however, was administered the mortality sank as low as 2·06 per cent. 6. From an experience of a very great number of cases, both of his own and of other medical men, he maintains that the doses, as given above, are perfectly harmless. 7. After a comparison of the various methods of treating pneumonia, Professor Petresco affirms that the expectant plan is not only without reasonable foundation, but even dangerous; and his experience has demonstrated that an attack of pneumonia may be aborted if the treatment is commenced at the very earliest stages of the disease.

THE RECURRENCE OF INFLUENZA.

DURING the past few weeks there has been unmistakable evidence of a return of the influenza in epidemic form, and in the United States it has shown a severity surpassing the outbreak of 1889-90. Chicago seems to have been one of the first cities of importance to have been thus visited, and in many other important towns of the Western States the disease is very rife at the present time. It appeared in New York about three weeks ago, and has been gradually increasing in intensity, and the latest reports show that it has caused a considerable rise in the death-rate there as in Chicago. In this country, although sporadic cases have been noted in the metropolis and elsewhere during the past winter, it has as yet, so far as we know, only assumed the epidemic form in certain towns and villages of Yorkshire—notably in Hull, Sheffield, and Driffield—and also in Birmingham, where, however, it is said to be more limited, and of a milder character than last year. It is hardly to be expected that the disease will be confined to these localities, and the coming week may witness a much wider extension of its area. The occurrence of milder and brighter weather may possibly serve to check its progress; but, if the contrary conditions prevail, the probabilities, judging from past experience, would be in favour of a severe recurrence of the disease.

A DRAINAGE SYSTEM FOR DURBAN.

THE important town of Durban, South Africa, is at last likely to obtain a system of drainage. The present mode of disposal of excreta and refuse by pails is very unsatisfactory and expensive, costing as it does nearly £8000 per annum for a population of 12,000 Europeans. The engineer, Mr. Fletcher, has drawn up a scheme for a drainage system which will cost under £5000 per annum for a population of 20,000, and £5350 even when the population has increased to 40,000. The difficulty that has always been recognised in connexion with any system of drainage for Durban is the disposal of the sewage. The highest point of the town itself is only twenty-six feet above low water level, an altitude that hardly suffices for removal by gravitation. Mr. Fletcher proposes to overcome this drawback by adopting the Shone system of pneumatic pumping. The sewage of the town is to be conveyed by main and subsidiary sewer pipes to tanks at the Point, where it will be "screened" from solid matter. That matter will be at once destroyed in refuse destructors. The liquid sewage—containing not more than 2 per cent. of solid matter—will then be conveyed to the end of the north pier, and ejected into the sea during the first four hours of every ebb tide. Mr. Fletcher advances evidence tending to show that freshly removed sewage thus poured out into tidal water is taken out to sea, and disposed of without risk, unpleasantness, or pollution of the waters that wash the shore. He considers that the fear that the excremental matter thus ejected into the ocean might be returned to the beach is set at rest by the destruction of all solids in the sewage, by the dilution of all fæcal matter, by the tidal dispersion of the outflow, and by the disinfecting agency of the sea itself. As the number of persons who go out to South Africa in search of health is constantly increasing, it is of great importance that one of its principal seaports should be put into a thoroughly sanitary condition, and we are sure the inhabitants will never regret the initial expense of carrying out such work in a thoroughly efficient manner.

THE STANDING COMMITTEE ON TRADE AND FACTORY SURGEONS.

WE offer our hearty congratulations to the Factory Surgeons on the triumphant vindication of their case before the Standing Committee on Trade of the House of Commons. The Home Secretary's proposal to abolish their office was rejected by the overwhelming majority of thirty-nine to nine. We are delighted to see that the divisions on this subject followed no party lines, but that men of all parties vied with each other in declaring that the *rôle* of certifying surgeon was a useful one, and essential to the working of sound factory legislation. It would be invidious to make fine distinctions where so many did well, but the profession will remember with gratitude the able and persistent part played in this discussion by Dr. Farquharson, Mr. Mundella, Mr. Shaw Lefevre, Mr. Chamberlain, Viscount Cranborne, and others. Nor are we disposed to be very angry with Mr. Matthews for making his unfortunate and unreasonable proposal. We can easily imagine that he was much pressed to do so. He should, of course, not have yielded to pressure in such a life and death matter as the removal of the only impartial judges of the health-fitness of children of tender years for factory labour. But he has indirectly and unintentionally taken a course which should establish the claims of the factory surgeons, not only to have their present uses recognised, but to have their functions extended rather than curtailed. We cannot doubt that the Home Secretary will reconsider his views on this subject in the light of the evidence that has been adduced, including the remarkable proofs furnished through Mr. Mundella, by Dr. Barr, of the way in which many employers have exacted fees from parents in large excess even of the charges of the certifying surgeon—a fact which so well explains the objection of some parents to the certifying surgeons. Sir William Houldsworth's opposition to the certifying surgeons has very much surprised some of his friends. Probably the member for North-west Manchester has been imperfectly reported, and we believe he may yet be found favourable to legislation that will make the work of the factory surgeons still more real and effective than it is. They must not rest on their oars. The contest may yet be renewed under other

forms; but if factory legislation has any justification, the humane and impartial office of the medical expert must be maintained.

HEALTH OF PROFESSOR TYNDALL.

THREE weeks ago a serious relapse placed Professor Tyndall's life in great jeopardy from pneumonia with double pleurisy. Improvement, however, took place, and by our last account the chest symptoms had, to a large extent, subsided. There remained necessarily much weakness, but the prognosis is distinctly favourable if no further relapse should occur.

FOREIGN UNIVERSITY INTELLIGENCE.

Berne.—Dr. Tschirsch has been promoted to the Ordinary Professorship of Pharmacognosis.

Ghent.—Dr. Visscher has been promoted to the Ordinary Professorship of Forensic Medicine.

Paris.—The number of students entering for the diploma of *officier de santé* during last year was only 358, as against 3528 entered for the doctorate. Of these last, 114 were women, mostly Russians.

Pennsylvania.—Dr. George E. de Schweinitz has been appointed Lecturer on Medical Ophthalmoscopy in the University.

Prague (*German University*).—Professor J. Schnabel of Gratz has been appointed to the chair of Ophthalmology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Rull, Professor of Midwifery in the Faculty of Barcelona, at an advanced age.—Dr. Julio M. Rodiguez of Matánzas, Cuba.—Dr. Eicke of Lasdehren.

AT the usual weekly meeting of the London County Council on Tuesday, the Main Drainage Committee presented a report with reference to the joint report of Sir Benjamin Baker and Mr. Binnie, the chief engineer of the Council, upon the main drainage system of London. They recommended that detailed plans be prepared of the new sewers on both sides of the river, as proposed in the joint report. After some discussion the following rider was added to the motion for the adoption of the report: "And that the committee be instructed to obtain a further report which shall have special reference to the separation of the rainfall from the sewage, the better prevention of storm overflows into the Thames and Lea, and the better purification of the river."

A CASE of centenarianism which would probably have satisfied even the late Mr. W. J. Thoms is afforded by the instance of Sir Provo William Parry Wallis, G.C.B., the Senior Admiral of the English Fleet, who completed his 100th year on Sunday. He was born at Halifax, Nova Scotia, on April 12th, 1791. He had maintained active habits up to Christmas, but since then, from illness, had kept his bed.

IT is reported that "the medical authorities of the University Hospital at Bonn have decided to discontinue the use of Dr. Koch's tuberculin, as well as of Dr. Liebreich's anti-tuberculosis remedy." We have not, however, seen any official announcement to this effect.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the above fund, held on the 14th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £45 was distributed among the several applicants.

Pharmacology and Therapeutics.

PIPERAZIDINE AS A SOLVENT FOR URIC ACID.

IT is stated in a German pharmaceutical journal that piperazidine dissolves uric acid more readily than any other substance of a basic nature. Urate of lithia requires 368 times its own weight of water to dissolve it, but urate of piperazidine dissolves in fifty times its weight of water. It may therefore be expected that this drug will become a fashionable, let us hope too an efficient, remedy in gout and allied diseases.

THE EFFECTS OF STRYCHNINE ON THE STOMACH.

The effect of nitrate of strychnine on the functional activity of the stomach has been recently made the subject of a careful research by Dr. Gamper of St. Petersburg, who employed for the purpose of his experiments four healthy young hospital assistants. He found that strychnine increased the amount of gastric juice secreted, the general acidity, and the quantity of free acid in the secretion. It also hastened the absorption from the stomach, and strengthened the mechanical movements. Its effect, too, continued for some time after its administration had been stopped. Like many other Russian observers, Dr. Gamper seems to have been highly impressed by the value of strychnine in chronic alcoholism, declaring that it is the most effective of all drugs in such cases. The thesis contains a long list of references to the literature of stomach affections, published in six or seven languages during the last ten years.

THE ALKALOIDS IN NUX VOMICA.

The effective strength of preparations of nux vomica is believed to be very variable, and that there is good ground for this belief is shown by analyses made by different observers. Thus, while some specimens of Ceylon nux vomica have been found to contain as much as 5½ per cent. of alkaloids, others from a different source have been found to contain as little as 1½ per cent. It is indeed impossible at the present time, as a pharmaceutical contemporary remarks, to fix what should be considered a fair average.

GELATINISATION OF INFUSION OF DIGITALIS.

Infusions of digitalis which have been kept some time occasionally become gelatinous or mucilaginous, the cause of the change not being very obvious. The matter has lately been engaging the attention of some German chemists, who have found that the peculiar thickening referred to depends upon the presence of pectin or some very closely allied body. It has been noted that this substance does not appear when the infusion is made carefully from leaves which have been deprived of their longer stalks, especially when the process of maceration is stopped in about fifteen minutes.

THE ACONITE ALKALOIDS.

The subject of the aconite alkaloids was discussed at a recent meeting of the Chemical Society, when a paper was read by Professor Dunstan and Dr. Ince. These authors investigated the alkaloid obtained by them from the root of aconitum napellus. The yellowish crystals melted at 188·4° C., and by crystallisation from the alcoholic solution were proved to be associated with a small quantity of a gummy amorphous base. The alcoholic solution was found to be, contrary to the statements of previous authors, dextro-rotatory, though the aqueous solution of the hydrobromide is lævo-rotatory. Two aurochlorides were obtained without difficulty, and these compounds afford a satisfactory means of identifying aconitine, which may be recovered from them in a pure state. It is not appreciably affected by heating at a temperature below its melting point, but at this temperature it is gradually converted into the uncrystallisable base aconite. Prolonged boiling in an aqueous solution induces a similar change, but not to the same extent unless an alkali is present. Boiling with water acidulated with hydrochloric acid also produces decomposition. Dehydraconitine or apo-aconitine is a base differing from aconitine by the absence of a molecular proportion of water. It may easily be prepared by heating aconitine with saturated aqueous tartaric acid in closed tubes. The crystals melt at 186·5° C. It forms crystalline salts, and in other respects closely resembles the parent alkaloid. By heating aconitine with water in a closed tube an amorphous base, apparently identical with aconite, was obtained. This substance is still under investigation

THE LANCET

Special Sanitary Commission.

REPORT ON THE SANITARY CONDITION OF ESHER.

IN THE LANCET of March 21st attention was drawn to an epidemic of diphtheria which has prevailed in the village of Esher during the last six months, and in our issue of April 4th we published a letter from Mr. Izod, in which that gentleman complained of the martyrdom the inhabitants of Esher have been enduring of late from the horrible odours arising in connexion with the establishment of a new drainage scheme.

Very alarming rumours have been circulated, but on inquiry the extent of the epidemic proves to be less considerable than the reports in some of the local papers would imply. Still, in a population of about 2000, sixteen houses were invaded, and thirty-two cases were notified between Oct. 24th and April 6th, with five deaths. During March no fewer than seventeen children were certified as suffering from diphtheria; but within a short time after the closure of the national schools, on March 20th, the number of cases began to diminish, and the hope may be entertained that the worst is now over.

Whatever the origin of the disease may have been, there can be no question that an important factor in its dissemination during March was the communication of diphtheria from one child to another at the national schools, and the authorities are to be congratulated on having promptly taken the most practical means of preventing a further spread of the epidemic. Esher is some fifteen miles south-west of London on the Portsmouth road. Its south-eastern limits are situated on the London clay, while the higher ground to the south-west is the Lower Bagshot sand, and to the north and west are river drifts. The Mole winds along the western boundary of the parish through low-lying marshy meadows, in close proximity to which is the outlying hamlet of Esher, known as West-End. The village itself is pleasantly situated on higher ground, over which the Portsmouth road runs on its way past Claremont Park in gentle undulations, the south-western extremity of the parish presenting ground of the most considerable altitude; on the south-east a declivity slopes downwards to another low-lying offshoot of the village known as Hare Lane. Esher has been until the last few months singularly free from zymotic disease. It derives its water-supply from the Lambeth Water Company, and surface wells seem to be things of the past. In the matter of drainage, Esher is passing through a critical period of its history. Until quite lately a cesspool system prevailed, but within the last two years a new departure has been made.

The new drainage scheme was designed to deal with the drainage of Esher, Claygate, Thames Ditton, and the western portion of Long Ditton. The work was commenced in August, 1889, and has continued with intermissions ever since, some of the inhabitants of the district manifesting considerable unwillingness to have their houses "connected." Roughly speaking, it is estimated that rather less than half the houses in Esher are at the present time still unconnected with the new sewers. The local authority, according to Section 23 of the Public Health Act, has only power to deal with houses lying within 100 ft. of the sewer, and in which the drainage is not effectual. Some of the unconnected houses lie at more than the specified distance from the sewer, and of those that do not exceed that distance some have doubtless adequate independent drainage. There are still, however, situated in close proximity to the sewers several cottages, the drainage of which is anything but effectual. The new scheme is theoretically a perfect one: adequate ventilation is provided, and the flushing arrangements when complete should secure all that can be desired; the effluent is dealt with in a satisfactory manner on a sewage farm. Unfortunately, however, at several flushing points the projected arrangements had not been completed at a time when a considerable number of houses were already connected with the sewers. The result seems to have been beyond anything which language can describe. Those who have had experience of the horrible odours arising from manholes and interceptors express their inability to convey any idea to the uninitiated of the smells which prevailed in the village during the early months of this year. In passing near a manhole "you had to cut your way with your stick." This state of things is now happily past history, and no smells whatever could be detected in the neighbourhood of manholes in the early days of this month. At this time, however, the flushing arrangements were still not quite completed.

Towards the end of last year more complaints of the smells, it is said, came from Claygate than from Esher, but of late the brunt of the battle seems to have been borne by the latter parish. It has been suggested that inasmuch as Esher lies somewhat higher than the rest of the area comprised in the new scheme it would naturally be expected to suffer more from the gases which have accumulated in the inadequately flushed pipes. Those who attribute the outbreak of sore-throat at Esher to the smells arising from the manholes and interceptors lay stress upon this point. It has been very justly urged that the new scheme of drainage dealt with a large area, in only a section of which deaths from diphtheria have occurred; and it has been argued if the manholes are responsible for the outbreak how is it that no death has this year been ascribed to diphtheria in Claygate, Long Ditton, or Thames Ditton? Here, on the other hand, it is urged the question of relative altitude comes into consideration, the noxious gases manufactured in the whole area, having found their way to the highest points in the sewer system, have escaped at those points and there produced disease. This argument appears plausible at first sight, but it must be remembered that the difference of altitude in question is not considerable; again, the free ventilation supplied by the manholes renders it incredible that foul gases produced, for example, in Claygate should travel such a distance along the sewers as to reach Esher, without escaping by the manholes on their way; indeed, the numerous complaints of the smells at Claygate strongly militate against the view that Esher has suffered to any appreciable extent from sewer gas conveyed by the pipes from adjoining parishes. The non-existence of diphtheria in any other portion of the drainage area cannot, in point of fact, be dismissed in this manner; it remains as one of the problems to be solved by those who attribute the prevalence of sore-throat in Esher to the opening of the new drainage scheme.

To turn now to the state of things which the new scheme was designed to supersede. There can be no doubt that in many parts of Esher there has been a most deplorable development of the evils which a cesspool system is capable of producing. The ground in the immediate neighbourhood of tenements is in many cases riddled with cesspools, some of which communicated directly with the interior of the house, and many of which no one can remember ever seeing emptied. No attention, in fact, was given in many instances to the emptying of cesspools until their contents overflowed. One woman was afraid to throw anything down the sink because the neighbours said "it stirred the cesspool up"; and others describe how they have noticed solid excrement floating about in the garden. Much has been done by the medical men in calling attention to these iniquities, but there can be no doubt that evils still exist which should be promptly remedied. One woman states, for example, that her husband's mother noticed fifteen years ago that a smell proceeded from a sink which emptied into a cesspool, and that the communication was accordingly stopped up, the plan adopted ever since being to dig holes in the garden for the reception of slops and waste material.

In the national schools the closets were supplied with pails, and earth was provided for the children to throw upon excreta, the pails being emptied twice weekly. The earth does not appear, however, to have been often used; at all events, the children are almost unanimous in their complaints of the smells which prevailed. One mother forbade her child to use the closet on this account, and the mother of a boy the subject of diphtheritic paralysis, stated

her son dreaded the smells of the closets so much that he would "punish himself" rather than use them.

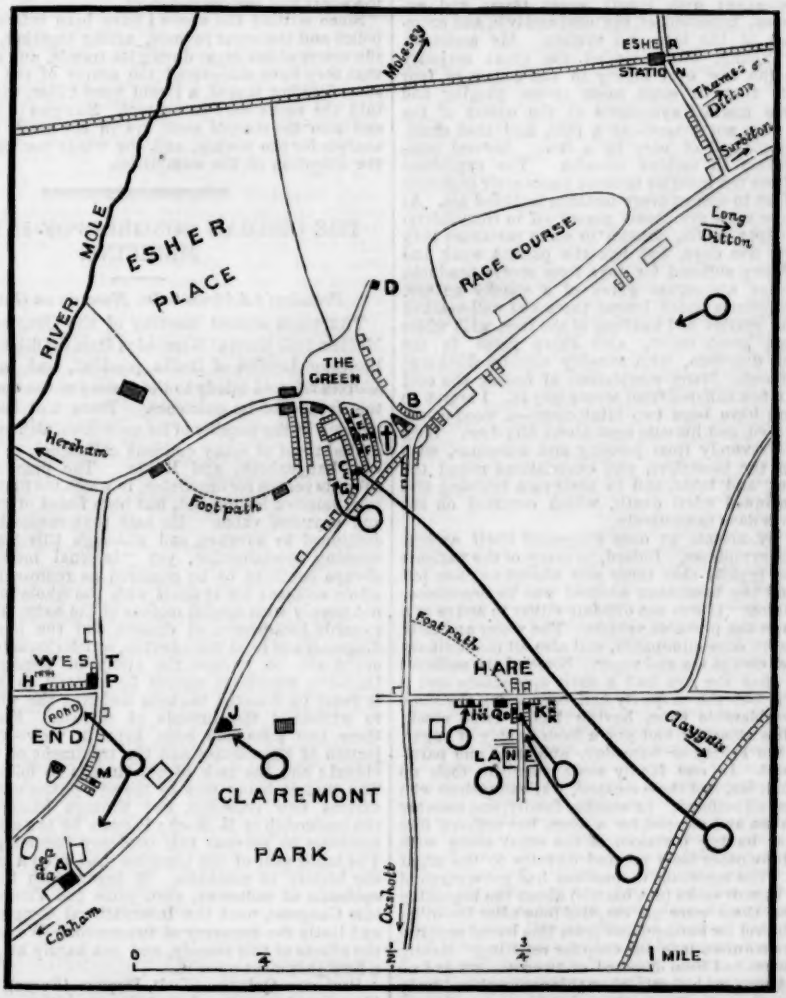
Dr. Gibbes, the medical officer of health, investigated the system of removal of slops and liquid excreta at the national schools on March 19th, and found that there were three cesspools, viz.:—No. 1 for the sink of the master's house, which had an overflow into No. 2, situated in the girls' and infants' playground, which also receives the urine and washings from the girls' and boys' latrines. No. 3 received liquid refuse from the governess' house, and urine and washings from the infants' latrines. None of the cesspools were ventilated. No. 2 had not been emptied for two years. No. 3 was emptied about two months ago, because it was found to be incapable of holding more. In the girls' closet there was direct communication with the cesspool, there being no trap; in the boys' closet and under the master's sink were placed absolutely ineffective bell-traps. The stench arising from this cesspool, conducted by way of the sink to within a few feet of the master's door, was at the time of our visit last week indescribable. The cesspool is now happily emptied, a complete reform of the national school drainage having been effected in the last few days.

In the annexed map is shown the situation of the households in which cases of diphtheria have been notified in Esher since the outbreak of the epidemic in October last. The milk-supply of families in which attacks have occurred has been ascertained in many instances, and it will at once be seen that the sources from which milk has been obtained are most diverse; no less than eight such sources have been already counted, and there are doubtless others. In no instance has any expression of dissatisfaction with the character of the milk been elicited.

To Dr. C. C. Gibbes, medical officer of health to the Kingston rural sanitary authority, and to the medical men of Esher we are much obliged for their kind assistance in the prosecution of this inquiry. To Mr. Briscoe, assistant to Mr. Izod, we are especially indebted, his intimate acquaintance with the several districts of the parish having been placed completely at our disposal.

MAP OF ESHER,

SHOWING THE SITUATION OF HOUSES IN WHICH CASES OF DIPHTHERIA HAVE BEEN NOTIFIED.



The capitals A, B, C to Q denote primary attacks of diphtheria in the order of their occurrence; the small letters secondary attacks occurring in the corresponding households. The nine circles indicate sources of milk-supply.

EXTENSIVE ARSENICAL POISONING.

BY ALEX. THOM, M.A., M.D. & C.M. ED., D.P.H. R.C.S.E.

INDIVIDUAL cases of poisoning by arsenic are not very uncommon, and have lately attracted considerable attention, but such poisoning is fortunately somewhat rarely met with on an extensive scale, and I think I am warranted in placing on record an occurrence of that nature where the symptoms were very characteristic and the *materies morbi* was clearly traced to some sugar.

On Saturday, Sunday, and Monday, the 4th, 5th, and 6th of April, the inhabitants of the lower part of Crieff, known as the Bridgend, were thrown into a state of consternation by what seemed to them the outbreak of an epidemic of vomiting with severe pain. The greater number of the cases, of which there were over a hundred, occurred within a limited area which might be embraced by a radius of an eighth or a sixth of a mile, and, speaking generally, were in families of the artisan class. The chief symptoms were pain and heat in the stomach, nausea, retching, and vomiting (the vomited matter being frequently brown and bilious-looking, and in some cases streaked with blood), great thirst and extreme depression, injection of the conjunctivæ, and sometimes swelling of the face and eyelids. My assistant, Dr. Andrew Young, who attended the great majority of the cases (he saw over eighty in the course of four days), reports that in some cases severe purging and tenesmus were marked symptoms at the outset of the attack, but were not present as a rule, and that strangury was complained of only by a few. Several complained of cramp in various muscles. The symptoms appeared in from ten minutes to three hours after ingestion of a meal, which in almost every instance included tea. As a rule the more acute symptoms passed off in from thirty-six to forty-eight hours, though in some instances they lasted four or five days, but left the patient weak and depressed. Many suffered for days from severe headache and nondescript abdominal pains of a colicky nature. Where the symptoms lasted longer there was well-marked œdema of the eyelids and swelling of the face, with white furred tongue, great thirst, also sharp pains in the intestines and diarrhœa, with shreddy mucous discharge tinged with blood. Many complained of feeling the cold acutely, and a few suffered from severe coryza. I regret to say that there have been two fatal cases—a wood carter aged seventy-two, and his wife aged about fifty-four. Both these suffered severely from purging and tenesmus, with great heat in the intestines, and excoriations round the anus, scrotum, and labia, and in their case retching and vomiting continued until death, which occurred on the eight and ninth days respectively.

Poisoning by arsenic at once suggested itself as best explaining the symptoms. Indeed, in many of the patients these were so typical that there was almost no room left for doubt, and the treatment adopted was in accordance with that opinion. It was not difficult either to arrive at a conclusion as to the probable vehicle. The water and milk supplies were at once eliminated, and also all the ordinary articles of diet except tea and sugar. Some of the sufferers had noticed that the tea had a dark appearance and a peculiar taste, but the majority had been using the same tea for a considerable time, having had a large stock. All the families attacked had got a fresh supply of sugar, however, on the Friday or Saturday, and from one particular merchant. In one family some members took no sugar with their tea, and these escaped, while the others who did take sugar all suffered. In another family, one member had taken no tea and escaped for a time, but suffered like the rest after having partaken of the sugar along with pudding. Many other facts pointed directly to the sugar as the cause. The merchant in question had got a cargo of sugar in five bags or sacks (not barrels) about the beginning of March, and these were all emptied one after the other into a large barrel for storage, and from this barrel supplies were taken as required into the shop for retailing. Nearly half of the barrel had been disposed of to customers and no ill-health had resulted hitherto when this outbreak suddenly occurred.

On examining the empty sacks, one was found with a stain on each side fully a foot square, which showed plainly that some fluid material had passed through the sack and its contained sugar at right angles to its long axis. Examination of the sugar at the level reached in the barrel showed a quantity more damp and of a darker colour than the rest. As I do not possess a laboratory and could not obtain a supply of sulphuretted hydrogen or other reagents within a reasonable time, I despatched a portion of this sugar to my friend Mr. Falconer King, city analyst, Edinburgh, who kindly telegraphed to me on the Tuesday that the rough tests showed the presence of arsenic, thereby confirming our opinion. Mr. King's report has since then been confirmed by the county and other analysts. On communicating with the wholesale house, the merchant was informed that over 100 bags of the same sugar had been despatched at the same time to various customers, and that there were no other complaints. It was impossible therefore to avoid the conclusion that in transit this particular sack had got part of its contents infiltrated with the poison. So many fluid preparations, such as one particular sheep dip and several weed-killers, contain so much arsenic, and so often leak, that it is not difficult to imagine how the impregnation of the sugar could occur. The patients comprised people of all ages, children suffering least, probably because vomiting being for them such an easy process they at once ejected the poison. In the cases where the poison proved fatal a considerable quantity of the sugar had been partaken of.

Since writing the above I have been informed that the police and the sugar refiners, acting together, have traced the course of the sugar during its transit, and are of opinion that they have discovered the source of the poison—viz., some leaking tins of a liquid weed-killer, with which it is said the sacks were in contact. Samples of this material, and also the stained sack, are in the hands of the public analyst for the county, and the whole matter is engaging the attention of the authorities.

THE GERMAN CONGRESS OF INTERNAL MEDICINE.

President's Address.—Dr. Naunyn on Gall-stones.

THE tenth annual meeting of the Congress für innere Medicin took place at Wiesbaden from the 6th to the 8th inst. Professor Leyden of Berlin presided, and in his opening address referred briefly to the history of the Congress during the decade of its existence. There had been a notable increase in the number of its associates, although death had robbed them of many eminent colleagues, as von Frerichs, von Langenbeck, and Rühle. The practice of having subjects chosen for discussion, in which the first two speakers were selected beforehand, had been found of great scientific and practical value. He said that medical science had continued to advance, and although this had led to increasing specialisation, yet "internal medicine" would always continue to be regarded as representative of the whole science; for it dealt with the whole individual, and not merely with special regions of the body. The endeavour towards localisation of disease and the pursuit of local diagnosis and local therapeutics, which characterises the age, ought not to replace the study of general conditions. Curative treatment cannot be limited to local lesions; it must be directed towards assisting the whole organism to withstand the inroads of disease. From antiquity these two aims had been kept in view—viz., the subjection of the disease and the treatment of the sick individual; and the task of our time is to follow both lines. The first is being met by the new pharmacology, through various new remedies, and through bacteriology, under the leadership of R. Koch; it must be the aim of internal medicine to prevent this tendency becoming too strong. The tenth year of the Congress had been a notable one in the history of medicine. It began with the remarkable epidemic of influenza, then came the Vienna meeting of this Congress, next the International Congress at Berlin, and lastly the discovery of tuberculin. We are still noting the effects of this remedy, and can hardly as yet arrive at a final judgment upon it.

Professor Quincke (Kiel), Demme (Berne), and Naunyn (Strasburg) were the elected vice-presidents, and Drs. Morig (Munich), Mührer (Prague), Reinhold (Freiburg), and Romberg (Leipzig) were appointed secretaries to the Congress.

A discussion upon Diseases due to Gall-stones was then

opened by Dr. Naunyn, who said that they exhibited various types in the typical severe attacks as well as in the more chronic irregular forms. Since surgery is increasingly, and with great success, coming to treat these cases, internal medicine should not be backward, and must seek for new methods of cure for these very chronic and insidious forms of disease. The questions as to the origin and formation of the calculi are of fundamental importance for treatment, but have been very variously answered. Some consider their formation due to an excess of cholesterin and bilirubin concretions in the bile, or that the disease depends on the materials being made insoluble through changes in the chemical composition and reaction of the bile. But cholesterin occurs not only in the bile; it is found in the blood, and the bile contains almost a constant quantity (2½ per cent.), without relation to the kind of nutriment, or of the amount in the blood, which often exceeds that in the bile. The amount of lime salts in the bile is also very constant. Chemical changes determining the precipitation of certain constituents of the bile are not proved as indispensable. In the aged there are often but few symptoms, so that during life no diagnosis is made; for whereas among younger persons 5 to 6 per cent., or even 10 to 12 per cent., of all bodies examined contain gall-stones, in aged subjects the proportion is much higher. According to Schröder, women are affected five times as frequently as men; before thirty they are rare; about 25 per cent. of the cases occur after sixty. Women who have borne children suffer more than others. It is inferred, therefore, that conditions causing stagnation of bile are the cause of the affection, such as pregnancies, tight lacing, &c. The type of costal respiration in females is a favouring circumstance. The frequency of the affection in the aged points also to stagnation due to atony. Artificial inspissation of bile does not form calculi, nor does the precipitation of insoluble substances; but it is far more probable that they arise exclusively from a change in the epithelium of the mucous membrane of the bile ducts. The calculi, at first small and rough, generally possess a central cavity filled with pulpy material or fluid. Bilirubin and lime salts are precipitated, and then cholesterin; and the former may form a sort of shell, within which consolidation subsequently takes place. Often the cavity contains clear fluid, and such stones are very friable. Cholesterin is deposited on the surface, and may penetrate into the interior; often calculi are quite white from cholesterin. These soft stones may harden from deposit of carbonate of lime. The biliary mucous membrane is always affected—desquamative angiocholitis. The condition of stasis also gives opportunity for the inflamed membrane to become infected with bacilli (one form resembles the bacterium coli commune of Escherich), which may sometimes even penetrate the calculi. The phenomena of the disease may be divided into regular typical cholelithiasis and irregular atypical forms, the latter often leading to cancer, and therefore of bad prognosis. As to treatment, he remarked that but little was to be expected from so-called solvents, as it had been shown that only very small amounts—of poisons, for example—passed into the bile. The effect of "cholagogue" remedies so generally prescribed had been left in doubt by experiment. A mixed diet causes a larger flow of bile than any drug, and solvent remedies are irrational, since the bile itself is a complete solvent for material contained in it. The excretion of bile must be mechanically aided by improved clothing. The use of salicylic acid &c. to prevent bacterial infection is not of much service. Since every error in diet brings on attacks, a main indication is strict dieting. The good effect of Carlsbad waters is perhaps due to excitation of peristalsis. Surgical treatment has, owing to the position of the gall-bladder, a fair prospect of good results, and in many cases the gall-bladder should be entirely removed. It is usual in practice to regard jaundice as the chief symptom, but very often there is no jaundice present, and the suffering in such cases is often only regarded as gastralgia.

(To be continued.)

A BURMESE BUDDHIST AND VACCINATION.

THE readers of THE LANCET will be interested to hear something of the quiet progress of civilisation in Burmah and measures of Government, apart from punitive expeditions against hill savages and the suppression of dacoits. The accompanying letter formed part of a correspondence which has lately been published in the vernacular issue of the Government *Gazette* and widely distributed through the country. It is optional here with municipal boards to make vaccination compulsory within their limits. Since the occurrences herein related several of the larger towns have followed the example of Rangoon and adopted compulsory vaccination. On his return from leave in October last, Dr. Pedley found a letter from the Sanitary Commissioner waiting for a reply. It stated that the President of the Township Committee of Allanmyo had failed in his endeavours to persuade the people of that place to adopt vaccination, but had heard that the late Chief Commissioner, Sir Charles Bernard, had in Durbar awarded a gold chain to a Loogyee (head man) for furthering the cause of vaccination amongst the Burmese. He inquired by what means the Loogyee had so succeeded.

The following was the reply from Dr. T. F. Pedley, Health Officer, Rangoon Municipality, to the Sanitary Commissioner and Superintendent of Vaccination, Burmah:

Rangoon, Oct. 7th, 1889.

SIR,—In answer to your letter, No. $\frac{3728}{15\ V.}$ dated Aug. 8th, 1889, with enclosures, I have the honour and pleasure to give you an account of the valuable assistance rendered by Oo Dway in furthering the cause of vaccination in Rangoon. Small-pox was prevalent in this municipality in 1883–84. During this epidemic some 2000 people were attacked and 885 died; of these 615 were children. Vaccination was not compulsory—in fact, the Burmese were so prejudiced against the operation that the municipal committee could not decide to have the Act enforced. When the epidemic began the subject of vaccination was much discussed among the Burmese, and a special meeting of the Loogyees was held to consider the matter. I was present, and explained the advantages of the operation, and begged them to assist me in getting the children vaccinated, for many of them were dying in the town. I received many promises, but was greatly discouraged, for very few of the men really interested themselves in the matter. When I and the vaccinators visited their quarters they were ready with all sorts of excuses, but did little or nothing to use their influence among their people, so that few children were vaccinated. Oo Dway, Myogan Loogyee (village head man) of Dalla came to me and asked me to pay a visit to his village, which is on the other side of the river, opposite Rangoon. He promised to have a number of children ready, and fixed what he considered would be a fortunate day. I went to Dalla accordingly, and was most agreeably surprised to find that the Loogyee had gathered the women and children, with a large crowd of people, at his house. I was allowed to vaccinate all the babies—Oo Dway's grandchildren first,—which I did with great care and gentleness, promising medicines and special care if any of them should suffer from the operation.

After this, every child in this large village was vaccinated, for Oo Dway persuaded the other Loogyees, and brought me the Sayas (native doctors) and inoculators, whom we showed how to vaccinate, and convinced them of the efficacy of the operation. This last was not difficult, for it soon became known that, while many children in the adjacent villages were ill or dying of small-pox, in Dalla there were very few cases, and no deaths from it, among the children. Oo Dway's example had a good effect among the Loogyees in Rangoon, for they began to interest themselves, and many of the Sayas threw aside the old practice of inoculation and learnt how to vaccinate, some of them becoming municipal vaccinators. The prejudices against the operation were broken down; and when the proposal was made to the municipal committee the next year to enforce vaccination, the Burmese members voted with the Europeans for it. Since then we have had no trouble, and regard the good work of the vaccination department with pride, feeling convinced that large numbers of lives and much suffering have been saved by its efforts.

One day after the epidemic had ceased, I asked Oo Dway how it was that, while the other Loogyees had disappointed me and given so little assistance in this work, he had come forward. I think his reply is well worthy of record, and his reasons, if widely made known, might do good among his fellow countrymen. He said that he was present at the meeting of Loogyees, and came to the conclusion that if vaccination would, as they had been told, save the lives of

the children, it was a work of *great merit*, and worthy of the best attention of a good Buddhist. Regarding the matter thus seriously, he made special visits to the Shony Dagon Pagoda, and in prayer sought the guidance of the higher powers. One night about this time he had a dream. He thought that while sitting on the bank of the river he saw a number of pieces of wood floating down to the sea. He thought it a pity that they should thus be wasted. So, getting into a canoe, he paddled out into the stream, and succeeded in collecting a large quantity, which he piled on the shore, and was much pleased with his good luck. He says he thought much about this dream, wondering what it might portend. It dawned upon him that the driftwood meant the lives of the children, which might be saved if he could persuade their parents to have them vaccinated. He hesitated no longer about the matter, but acted as I have above described. I believe Oo Dway to be a kind-hearted man, who lives up to the best teachings of his religion. He is much beloved by the people of his quarter, and respected by those who know him. I referred to the assistance he had given me in my Sanitary Report for 1884, and mentioned the matter to the Chief Commissioner. Sir Charles Bernard expressed great pleasure in being able to publicly recognise Oo Dway's good work. I know that the reward of the gold chain was not expected, and believe that the highest motives prompted his benevolent endeavours.

I have the honour to be, Sir, your obedient servant,

T. F. PEDLEY,
Health Officer, Rangoon Municipality.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Teignmouth Urban District.—Dr. Cecil H. Piggott calculates the death-rate during 1890 for the two component parts of this district as 17·2 per 1000 for Teignmouth and 19·3 for Shalden; and, in referring to the infectious diseases, he explains that, the existing means of isolation being inadequate, no cases were removed to the hospital. On the question of drainage generally, Dr. Piggott reports that the authority has every reason to congratulate itself upon the satisfactory completion of several much-needed improvements. Oddly enough, this same authority, on receiving the report, declared that it tended to convey a "wrong impression to the outside public as to the drainage of the town." We regret to hear this, for if, as Dr. Piggott says, the drainage is now a matter of congratulation, the authority must know something against it which their medical officer of health has not reported on. But this seems hardly possible, and hence we look through the report again to see this meaning of this warning which the local board has made so public; and the only other explanation of it lies in a detailed account of the sanitary circumstances of a building where enteric fever took place. Happily for Teignmouth, no general faulty condition was found to be concerned in this preventable disease; it was due to local conditions affecting the actual premises attacked, and Dr. Piggott, drawing the right and proper inference, suggests that action should be taken to prevent any further similar occurrence. But he adds that in Teignmouth there are, happily, few such spots to be found. And yet this officer is asked for the future so to report as not to prejudice the health of the town. The things that are prejudicial are the high death-rate and the resolution of the authority, and the one comforting fact is a report which explains that faulty circumstances affecting public sewers and house drainage are not allowed to remain when once discovered. Fortunately, intending visitors to Teignmouth can, so long as the present medical officer of health remains in office, feel assured that improvements called for in the interests of public health will, as heretofore, be continued; and that, if the present high death-rate admits of being speedily reduced, the authority, and the public electing them as their representatives, will be openly advised as to the measures that are needed to this end. The authority would do well to pass resolutions which will give confidence to the public, instead of such suggestive ones as that recently adopted. A resolution, for example, to provide at once some adequate means of isolation would be much more to the benefit of Teignmouth than the attitude now adopted.

Sutton Coldfield Urban District.—The maintained small death-rate, averaging some 12 per 1000 per annum, must be regarded with satisfaction by the Town Council and by Dr. Bostock Hill, their health adviser; and the small zymotic rate adds to the satisfactory result. Where preventable disease occurs, the defects are pointed out and remedied, and this work is made the more complete by the adoption of the Notification Act. The carelessness which goes on in the face of the high mortality from measles in this country is adverted to, and the action which can be taken in controlling it by restricting school attendances is pointed out at some length. Excellent records are embodied in the report as to the systematic sanitary action and inspection in progress, and as to the meteorology of the locality; but the year's sanitary history is in one sense satisfactorily brief; for, as Dr. Hill asserts, Sutton Coldfield for three consecutive years has taken its stand in the first rank of healthy towns, and in 1890 it had the lowest rate of general death and of infant death of all the boroughs in the county of Warwick.

Uxbridge Urban District.—Mr. W. Rayner shows the excellent use to which the joint hospital for infectious diseases was put during the past year, and with the steady isolation of diphtheria, which is evidently in progress, we may hope that this disease, which some time since was severely epidemic, may be permanently checked, for inspection of schools and other allied work seems also to be steadily maintained. Happily, only one death from any zymotic disease took place, and where any such cases occurred cleansing, disinfection, isolation, and removal of insanitary circumstances were fully carried out.

Stroud Rural District.—Some detailed account is given by Mr. Partridge as to the general inspection of this district during 1890 and of the results attained, as also of the causes of death which prevailed. The death-rate from all causes has been almost continuously falling since 1875, and it was 14·7 per 1000 last year; the zymotic rate was also small—namely, 0·8 per 1000. Some diphtheria occurred, and, as is commonly the case, it prevailed chiefly amongst children aggregated in one of the elementary schools. Occasion was properly taken to remedy a number of sanitary defects, both at the school and at the houses of those who were attacked. There were also fifty-three attacks from scarlet fever, but no death. Some extension of the public water-service has taken place, but there is need of similar progress in respect of public sewers.

Stroud Urban District.—Unlike the Stroud rural district, this town is stated to be hesitating about the desirability of learning whether infectious disease is prevailing in its midst or not, and at the date of Mr. Partridge's report notification was still in abeyance. The annual death-rate for 1890 was 16·2 per thousand. Steps are being taken to remedy a deficiency in the public water-supply, and it is to be hoped that when this is completed no further accounts of unwholesome supplies will be possible.

Bisley Urban District.—This district is also under Mr. Partridge's health supervision, and it had a death-rate last year of 15 per thousand living. Some cases resembling enteric fever were found to be associated with defective sanitary surroundings; the water-supply is from wells, many of which are of a doubtful character, and this although a public service would appear to be available. Reading between the lines of this report, it is clear that the health officer is of opinion that the death-rate of this little town is too high, and that there are conditions within it capable at any time of causing much greater mortality.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6615 births and 4400 deaths were registered during the week ending April 11th. The annual rate of mortality in these towns, which had been 21·2 and 22·4 per 1000 in the preceding two weeks, further rose to 22·9 last week. The rate was 20·0 in London and 25·3 in the twenty-seven provincial towns. During the thirteen weeks of last quarter the death-rate in the twenty-eight towns averaged 23·0 per 1000, and slightly exceeded the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these

towns last week were 18·3 in Brighton, 19·4 in Birkenhead, 19·5 in Norwich, and 19·8 in Nottingham; the highest rates were 29·7 in Manchester, 34·1 in Newcastle-upon-Tyne, 34·2 in Manchester, and 42·5 in Hull. The deaths referred to the principal zymotic diseases, which had been 414 and 468 in the preceding two weeks, declined again last week to 438; they included 157 from measles, 147 from whooping-cough, 40 from diphtheria, 36 from scarlet fever, 30 from "fever" (principally enteric), 28 from diarrhœa, and not one from small-pox. These diseases caused the lowest death-rates in Brighton, Sunderland, Birkenhead, and Wolverhampton, and the highest rates in Leicester, Blackburn, Huddersfield, and Portsmouth. The greatest mortality from measles occurred in Bristol, Blackburn, Huddersfield, and Portsmouth; from scarlet fever in Bradford; and from whooping-cough in Newcastle-upon-Tyne, Leicester, Derby, and Halifax. The mortality from "fever" showed no marked excess in any of the twenty-eight towns. The 40 deaths from diphtheria included 26 in London, 4 in Salford, and 2 each in Manchester, Liverpool, and Sheffield. No fatal case of small-pox was registered in any of the twenty-eight towns; 7 small-pox patients were under treatment in the Metropolitan Asylum Hospitals and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1018, and showed a further decline from recent weekly numbers; the patients admitted during the week were 77, against 81 and 98 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 466 and 489 in the previous two weeks, declined to 464 last week, but exceeded by 30 the corrected weekly average. The causes of 94, or 2·1 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Preston, Leeds, and in seven other smaller towns; the largest proportions of uncertified deaths were recorded in Salford, Sheffield, Hull, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·7 and 26·2 per 1000 in the preceding two weeks, further declined to 25·0 during the week ending April 11th, but exceeded by 2·1 the rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 15·4 in Perth and 16·4 in Greenock to 30·4 in Glasgow and 52·5 in Paisley. The 653 deaths in these towns showed a decline of 31 from the number in the preceding week, and included 33 which were referred to measles, 25 to whooping-cough, 7 to diarrhœa, 6 to "fever," 5 to diphtheria, 4 to scarlet fever, and not one to small-pox. In all, 80 deaths resulted from these principal zymotic diseases, against numbers increasing from 73 to 100 in the preceding three weeks. These 80 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·8 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had increased in the preceding five weeks from 16 to 41, declined again last week to 33, of which 19 occurred in Paisley and 12 in Glasgow. The deaths referred to whooping-cough, which had been 34 and 28 in the previous two weeks, further declined to 25 last week, and included 16 in Glasgow and 3 in Leith. The 6 fatal cases of "fever" exceeded the number recorded in any recent week; 3 occurred in Glasgow and 2 in Aberdeen. The 5 deaths from diphtheria showed a decline of 4 from the number in the preceding week, and included 2 in Glasgow, where 3 of the 4 fatal cases of scarlet fever were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 201 to 166 in the preceding four weeks, were 164 last week, and exceeded by 38 the number in the corresponding week of last year. The causes of 63, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·1 and 23·9 per 1000 in the preceding two weeks, rose again to 30·6 during the week ending April 11th. During the thirteen weeks of last quarter the death-rate in the city averaged 30·2 per 1000, the rate for the same period being 22·6 in London and 21·8 in Edinburgh. The 207 deaths in Dublin showed an increase of 45 upon the number in the preceding week, and included 5 which were referred to "fever," 2 to whooping-cough, 1 to diphtheria, and not one either to small-pox, measles, scarlet fever, or diarrhœa. Thus the deaths referred to the principal zymotic diseases, which had declined from 11 to 5 in the preceding three weeks, rose again last week to 8; they were equal to an annual rate of 1·2 per 1000, the rate from the same diseases being 1·8 in London and 0·9 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 4 to 1 in the previous three weeks, rose again to 5 last week, and exceeded the number recorded in any week since January last. The fatal cases of whooping-cough, which had been 3 in each of the preceding two weeks, were 2 last week. The 207 deaths in Dublin included 34 of infants under one year of age and 57 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon those recorded in the preceding week. Six inquest cases and 5 deaths from violence were registered; and 59, or more than a fourth, of the deaths occurred in public institutions. The causes of 24, or nearly 12 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE REVISED SCHEME OF THE LONDON UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—You will, I hope, sufficiently bear in mind the motto at the head of your correspondence column to allow me to say a few words in favour of the scheme of the Senate of the London University to which you are so strongly opposed. Your first argument against it is that it is not formed on the lines laid down by the Royal Commission, and your chief reason for this statement is that the new scheme will admit provincial constituent colleges to the University. This is a mistake. It will not admit them; it will only render it possible for them to be admitted, for Section 26 says that the admission of provincial constituent colleges shall be determined by the Senate, and Section 27 gives the Senate power to remove provincial constituent colleges. The London and provincial parts of the University are kept so distinct that the latter may be brought in or taken out without any interference with the London Colleges. It is quite conceivable, and even probable, that either none of the provincial Colleges may apply for admission, or that, if they do, the Senate may not be satisfied with the grounds given for such admission. The London Constituent Colleges—viz., University College, King's College, and the London medical schools—are, however, constituent colleges in their own right; so that your statement that "it [the scheme] endeavours to bring under the central control of Burlington-gardens all the University Colleges of Arts and Science in England and Wales, instead of adapting its organisation mainly to the London Colleges and medical schools," is incorrect, especially as there is no intention of admitting "all the University Colleges," for the chief of them are already affiliated to the Victoria University. You next contend that the scheme is at variance with the report of the Royal Commission because it does not alter the M.D. degree. It alters it by making it much more accessible than it has been hitherto, for it proposes that by one set of professional examinations, conducted by examiners appointed conjointly by the Royal College of Physicians, the Royal College of Surgeons, and the University, the candidate may take his L.R.C.P., his M.R.C.S., and his M.B., thus saving expense, diminishing the number of examinations, and consequently decreasing the risk of failure. But it does not follow, as you seem to think, that power to give degrees will thus be handed over to the Royal Colleges, for while, if the Colleges are satisfied, the candidate will be granted his L.R.C.P. and M.R.C.S., he will only be granted his M.B. if the Senate and the University Board of Studies are satisfied. I think I have shown that the scheme is not so opposed to the spirit and working detail of the report of the Royal Commission as you suppose.

Your second argument is that the scheme will not satisfy any of the bodies interested. I should have thought it was obvious that when so many bodies are interested, and each would like as much as it can get, it would be impossible to satisfy them all; but surely it speaks well for the scheme that it has already been adopted by the Senate, the Royal College of Physicians, the Royal College of Surgeons, Guy's, St. Bartholomew's, St. Thomas's, London, Charing-cross, St. Mary's, Middlesex, St. George's, and Westminster Hospitals, the London School of Medicine for Women, the Incorporated Law Society, and (with certain reservations with regard to the provincial colleges) by University and King's Colleges. Probably everyone thinks he could improve the scheme, but it seems to me that it ought to be strongly supported by Convocation, for it is the only one which has yet been proposed which commands support from almost all the bodies concerned. Further, those who oppose it should consider what will happen if it is rejected, for then one of two things will come to pass: either the medical faculty of the London schools will be left in its present unsatisfactory state for many years to come, or a second university will be founded in London. This will lead to dangerous rivalry, and probably to the degradation of the degrees in one or both of the universities. Also, there will be great confusion between the two London degrees.

I am, Sirs, yours faithfully,

Harley-street, W. W. HALE WHITE, M.D. Lond.

*** If Dr. Hale White compares the proposed constitution of the Senate in the new scheme with that proposed by the Royal Commission he will see that provincial representatives are included in the former and not in the latter. He should also be aware that the "latest" scheme differs from the one before the "latest" in making arrangements for including provincial colleges, and was introduced as the outcome of a distinct objection on the part of those colleges to be excluded from a share in the reconstituted University, as well as in its management. This is in direct opposition to the recommendation of the Royal Commissioners, who merely suggested "access to the examinations and degrees" for provincial students, as is now the case. Unless the scheme lowers the M.D. degree by changing the earlier matriculation and preliminary scientific examinations, it cannot render that degree more accessible. It simply *compels* every London pass M.B. student to come under the examination system of the Royal Colleges, and that at an increased expense to the intending graduate. Does Dr. Hale White intend to convey that the members of the medical staffs of the various London hospitals have officially met to consider the scheme, and that it has been regularly voted on and agreed to by them? Dr. Hale White should not have accepted so readily arguments employed in an *ex parte* memorandum, which would seem to be drawn up by the Senate of the University to influence the voting of Convocation on May 12th next.—ED. L.

THE ELECTRIC BATH.

To the Editors of THE LANCET.

SIRS,—The experiment quoted by Beard and Rockwell, to which Dr. Steavenson alludes as proving that the body conducts the electric current better than water, has little to do with their relative conductivities, but depends entirely upon the difference of potential between the two positions in the bath in which the two hands are immersed. If there were a difference of 50 volts between the head and foot electrodes, and the hands were immersed three feet apart, there would be a difference of potential of about 20 volts between the right and left hands, and the current through the body would equal in fractions of an ampère that voltage divided by the resistance in ohms, and as the distance between them is diminished so also will be the voltage and current. If, however, the hands were placed the same distance apart across the bath there would be no difference of potential and consequently no current. Another experiment was quoted to me a short time ago which was supposed to prove the same thing, and is as follows. If a galvamometer be included in the circuit of a galvanic bath and the current noted, through the water alone and also when the patient is immersed, it will be found that the current is considerably increased under the latter condition. This result is, however, in no way due to the superior conductivity of the body, but to the fact that its conductivity is added to that of the water, since they are practically in parallel circuit, or the sectional area of that portion of the circuit may be regarded as thereby increased, and consequently its resistance diminished. Again, it is quite true that if salt or acid be added to the water, it will become a better conductor, but not that the whole of the current will then pass through it. In fact, but little current will be thereby diverted from the patient, since as the resistance of the circuit is diminished the total current is increased, and will be divided between conductors in parallel inversely as their resistances; so that whilst the current through the bath would be increased, that through the patient would be but little diminished, and that diminution would not be due to the current selecting the path of least resistance, but because, by increasing the conductivity of that portion of the circuit, the gradient of potential is rendered less steep. I must not be understood as calling in question the fact that the body may under some circumstances be a better conductor than the water, but only as stating that the above experiments have no direct bearing upon the question.

I am, Sirs, yours faithfully,

Southport, March 30th, 1891. FREDERICK GEORGE, M.D.

THE ARMY MEDICAL DEPARTMENT.

To the Editors of THE LANCET.

SIRS,—An able and lucid article in THE LANCET of March 28th, 1891, concludes as follows: "We would protest against the assumption that the profession of medicine is in need of any reflected dignity. It has every bit as much title to respect as the profession of arms." It has more right to respect than the profession of arms, which is not a learned profession, but unfortunately in the army, at any rate, it does not obtain the respect to which it is entitled, and never will until its officers have distinct and intelligible military rank and titles. This is lamentable, but it is true, as army medical officers well know; and it is to this aspect of the case I crave the powerful support of THE LANCET. I wish you could see the state of things at the station from which I write. It is a very large one, where society is exclusively naval and military, and the medical department is at the bottom of the social scale, not from any peculiarity of its members, many of whom have brothers, cousins, or schoolfellows among the combatant officers of the garrison, but solely because they have no military rank or status. It may be difficult for a civilian to understand this, but to those accustomed to military habits the question is simple enough, and they will see that among military society a man without rank and title is nowhere. I can assure you that if Sir Andrew Clark or Sir James Paget formed part of this garrison they would have their corns trodden upon many times every week. They would find that they were not considered fit to preside over even a sanitary committee, of which the most junior subalterns of the station, who might even be their own sons, formed a part. That they could not form part of a court martial by which one of their own men was tried, and that they and their belongings were avoided by society for fear that those who associated with them might be branded with social inferiority; and all this because they have no military rank and status. How can any officers, except they are superhuman, perform their duties, with zeal and interest under such circumstances?

I am, Sirs, yours truly,

April 14th, 1891. MEDICAL STAFF.

PRE-HISTORIC TREPHINING.

To the Editors of THE LANCET.

SIRS,—It may interest some of your readers who are interested in the question of pre-historic trephining to know that a very full and most interesting account of the operation is to be found in Miss A. W. Buckland's paper, "Surgery and Superstition in Neolithic Times," read at the meeting of the Anthropological Institute on Feb. 8th, 1881, and published in the journal of the Society, vol. xi., pp. 7–21. On

May 10th, 1887, Mr. Victor Horsley read a paper before the same Society on "Trephining in the Neolithic Age," which gave rise to a most interesting discussion. The discussion and an abstract of the paper appear in the Society's journal, vol. xvii., pp. 100–107. As your correspondent, Mr. Keyworth, states, M. N. Joly, in his book, "Man before Metals," being the forty-fourth volume of the international series, deals very fully with the subject; he accepts the usual explanation, which also has the approval of M. Broca, that the operation was due to the superstition of "possession" by an evil spirit—a superstition that long continued, as evidenced by the form of exorcism which was used during the baptismal service in the Church of England which appears in the Prayer Book of Edward VI., A.D. 1549, as follows:—"I commande thee, uncleane spirite, in the name of the Father, of the Sonne, and of the Holy Ghost, that thou come out, and departe from these infantes, whom our Lord Jesus Christe hath vouchsaued to call to his holy Baptisme, to be made membres of his body, and of his holy congregacion. Therefore thou cursed spirite, remembre thy sentence, remembre thy iudgemente, remembre the daye to be at hande, wherin thou shalt burne in fyre euerlasting, prepared for thee and thy Angels. And presume not hereafter to exercise any tyrannye towarde these infantes, whom Christe hath bought in his precious bloud, and by this his holy Baptisme called to be of his flocke."

Children were occasionally credited with being possessed by good spirits; such a one was the infant of Kherberg, an account of whom was published in this city by Dr. Arthur Jacob in A.D. 1823. A great deal of information dealing with the subject of "possession" is contained in Herbert Spencer's Sociology, chap. xvii., vol. i., 2nd edit., A.D. 1877; Clodd's "Childhood of Religions," A.D. 1875; Reginald Scott's "Discoveries of Witchcraft," A.D. 1584, a reprint of which by Dr. Brinsley Nicholson was published by Elliot Stock in A.D. 1886.—I am, Sirs, yours truly,

GEORGE FOY, F.R.C.S.I.

Cavendish-row, Rutland-square, Dublin, April 10th, 1891.

"ASTASIA-ABASIA."

To the Editors of THE LANCET.

SIRS,—On page 791 of THE LANCET there is a record of a case with a big name, "astasia-abasia," reported by Mr. G. H. Hammond of New York. Five cases of a similar affection were reported by me in the St. Bartholomew's Hospital Reports, vol. xxv., p. 201 (copy of which I enclose for reference), under the title "Disuse of Limbs after Severe Disease: a Pseudo-Paralysis," and I have just now discharged from the Colchester Hospital a similar case, a brief report of which I enclose. The affection can hardly be considered a paralysis, for when the weight of the body is supported by the bed or by nurses, the limbs can be moved. It is rather an exhausted condition of muscles, which under suitable treatment are easily repaired. The first point is to obtain the confidence of the patient and to induce a belief that recovery is certain. The first use of muscles after a long period of disuse is very fatiguing; but, recovery being assured, patients soon find power returning after efforts made, and, being encouraged by this to proceed, improvement becomes rapid.

I am, Sirs, yours obediently,

ALEXANDER WALLACE,

April 14th, 1891. Physician to Essex and Colchester Hospital.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Uncertified Deaths in Durham.

DR. JEPSON, in his annual report to the Durham Rural Sanitary Authority, notices the large number of uncertified deaths. Of 321 deaths 91 were uncertified; and, deducting deaths from injury where inquests have been held, he says that 29 per cent. have not been properly accounted for, and justly remarks that the term "natural causes" is unacceptable as a registered cause of death. With regard to an outbreak of scarlet fever in October, he says it appeared to be coincident with the return of children to the various schools.

A Durham County Centenarian.

Mr. Thomas Ironsides, farmer, of Kibblesworth, a few miles from Gateshead, celebrated his 100th birthday on Sunday last. He is said to be in robust health, and exhibits so few signs of decay that it would be difficult for a stranger to hazard a guess at his age. The farm which he occupies, of 200 acres, is on the estate of the Earl of Ravensworth, and the house in which he now resides is the one in which he was born. Mr. Ironsides has a large family, most of them living, his eldest son being now over seventy years of age. He is, although not a teetotaller, always moderate in his use of alcoholic drinks.

Railway Ambulance Work at Gateshead.

Certificates and badges have been presented to the members of the North-Eastern Railway Ambulance class at Gateshead. The class is a large one, and has been examined by Surgeon-Major Halton for the St. John Ambulance Association. On behalf of the class, Dr. Purdie, its instructor, was presented with a splendid edition of Sir Walter Scott's works in twenty-five volumes.

Carlisle Infirmary.

It is stated that the "Jubilee Endowment Fund," which Mr. Parker of Carleton Hill, the late treasurer of the Cumberland Infirmary, Carlisle, raised as a memorial of Her Majesty's Jubilee, has now reached £2225. Lord Leconfield has just contributed £25.

Sunderland: the Asylum Question.

What is to be done with lunatics chargeable to Sunderland is now a prominent question in the town. Hitherto the Durham County Asylum at Sedgefield has been able to receive them, but now even that vast establishment has not sufficient room, and declines to take any more from this borough. It appears that Sunderland has contributed nearly £16,000 towards the Sedgefield institution, and this sum is offered by Sedgefield as a sort of compensation to Sunderland, and to enable it to build an asylum of its own, but Sunderland asks for £50,000. The difference between these sums is so great that the commissioners appointed under the Act will have to decide what proportion Sunderland is entitled to. It is quite certain that the authorities will have to build, and build largely, to provide the requisite accommodation. The local papers publish quite a large list of subscriptions to the Infirmary, and they are for the most part from working men and organised subscriptions from workshops in the town and district.

Horseflesh.

At the Gateshead Police-court last Friday two men from Sunderland were fined for ill treating and working a horse while in an unfit condition. Evidence for the prosecution showed that while being spoken to as to the unfitness of the horse for work it fell dead. It transpired that it was being driven to a tanyard for slaughter, and that a higher price was given in Gateshead than in Sunderland because the flesh was afterwards forwarded in tubs to Antwerp by steamer.

The Perils of Football.

On Sunday last a young man aged twenty died at Middlesbrough. On the previous day deceased played in a football match at Haverton Hill, and was injured in the abdomen. He walked home, and was afterwards medically attended, but died rather suddenly. During the progress of a match at Leasingthorne, on Saturday, one of the home team had the misfortune to have his leg fractured, and another broke his collar-bone.

A most successful concert, under the patronage of the mayor, was given last week for the benefit of the building fund of the Eye Infirmary.

The Liverpool Sessional Grand Jury has issued a presentment for the demolition of 500 houses which had been condemned on account of their insanitary condition.

Newcastle-on-Tyne, April 16th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University General Council.

Reports have been issued in view of the statutory half-yearly meeting of the General Council of the University by committees appointed by the Council, and these reports contain points of importance as regards the medical faculty. With reference to examiners and examinations, they

approve of the proposals that (1) the extra-mural teachers should be included in the list of examiners for their respective subjects along with qualified persons neither professors nor extra-mural teachers; and (2) that the number of examiners should be sufficient to prevent the possibility of any candidate being examined wholly or chiefly by the professor or the extra-mural teacher in the subject of his own lectures. The committee are also in favour of oral examinations for degrees being open to all members of the University. As regards the remuneration of professors' assistants, the committee are of opinion (1) that any fees derived from instruction given by assistants and not by professors should, after deduction of whatever might be deemed reasonable for university purposes and class expenses, be appropriated to the payment of the assistants who give such instruction; (2) that the aim should be to obtain for senior assistants who give their whole time to university work a salary at least equivalent to that attached to tutorships at the English universities, which may be estimated at from £200 to £300 a year, and for junior assistants payment in proportion to their time employed.

Edinburgh Public Health Committee.

THE statistics submitted to the Public Health Committee of the Edinburgh Town Council show that the total number of deaths in the city during the month of March was 513, making the death-rate 22·35 per 1000, while the average during the same month for the five preceding years was 19·59 per 1000. The rate differed greatly in the different districts, it being 17·29 in the southern district, 19·99 in the New Town, and 27·36 in the Old Town. As regards age, 31·96 per cent. of the total deaths were under 5 years, 11·11 per cent. between 5 and 25, 25·34 per cent. between 25 and 60, and 31·57 per cent. above 60 years. The deaths from diseases of the chest numbered 185, and from zymotic diseases 52. Of the latter, 5 were from typhoid fever, 6 from diphtheria, 4 from scarlatina, 9 from measles, 26 from whooping-cough, and 2 from erysipelas. During the month 521 cases of infectious disease were reported in the city, as against 1199 in March of last year. The cases included 362 of measles, 91 of scarlatina, 47 of typhoid fever, and 21 of diphtheria. The number of patients in the City Hospital at the end of the month was 223, of which 51 were cases of typhoid fever, 8 of diphtheria, 101 of scarlatina, 28 of measles, 11 of whooping-cough, and 10 of erysipelas. The amount of unsound meat seized or condemned during the month was 35,435 lb. Of 138 carcases seized or condemned during the last fortnight of March, 79 were unmarketable, 13 tuberculous, and 10 decomposing.

Extension of Edinburgh Royal Infirmary.

The question of the extension of the Royal Infirmary is still under consideration, and it is understood that a deputation waited upon the Estates Committee of George Watson's Hospital with a view to the possibility of acquiring the elementary department of the college for boys. The difficulty here also is to obtain suitable accommodation for the juvenile department of the school if the present site and buildings are disposed of to the infirmary.

Fever Patients at the Leith Hospital.

The directors of the Leith Hospital have given notice to the Town Council of Leith, as local authority, that they have resolved to terminate the arrangement under which fever patients have been received into the hospital. This will necessitate the provision by the local authority of a hospital for the reception of such cases.

Health of Edinburgh.

The mortality last week was 94, making the death-rate 18 per 1000. Diseases of the chest accounted for 34 deaths, and zymotic diseases for 4. The intimations for the week included 2 from typhoid fever, 2 from diphtheria, 27 from scarlatina, and 109 from measles.

Death of Dr. Alexander Geddes.

The death occurred at Buckie on the 18th inst. of Dr. Alexander Geddes from typhoid fever, contracted in the exercise of his professional duties. Deceased began practice in Buckie in July, when he had just graduated M.B., C.M., at Aberdeen University. During the course of his medical studies he obtained distinction in several of the classes, and acted as demonstrator of anatomy to Professor Struthers for two years. His untimely death at the beginning of a very promising career is undoubtedly due to the great devotion displayed by him during the present outbreak of typhoid fever. He was twenty-six years of age, and is survived by a widowed mother, with whom the community deeply sympathise.

Complimentary Dinner to Dr. J. C. M'Vail.

On the 10th inst. Dr. J. C. M'Vail, the late medical officer of health for Kilmarnock, was entertained to a complimentary dinner in the George Hotel, Kilmarnock, on the occasion of his leaving town to enter upon his duties as medical officer of health under the County Councils of Stirlingshire and Dumbartonshire. There were about eighty gentlemen present. Provost M'Lelland occupied the chair, and the croupiers were Mr. Thomas Kennedy, of Glenfield Works, and Dr. Alexander Dundonald. The Provost, in proposing the toast of the evening, passed a high eulogium upon Dr. M'Vail for the valuable services he had rendered to Kilmarnock.

A sum of £1000 has been given to St. Andrew's University towards the endowment of a botanical lectureship or future Chair in the United College.

April 14th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Ether Drinking.

AT a meeting of the members of the General Synod of the Church of Ireland held last week the following resolution was adopted: "That this Synod thankfully acknowledges the action taken by the Government for the restriction of the traffic in ether as an intoxicant, and respectfully urges that further legislation is necessary for its suppression."

A Mistake in a Prescription: Damages £200.

An application was made last week before Master Bruce by Mr. Gray to recover damages laid at £500 against a firm in Dublin for negligence in compounding a prescription whereby injury was occasioned to the plaintiff. The principal ingredient in the prescription was aromatic spirits of ammonia, but on taking the first dose the patient suffered intense pain in the throat, and for a fortnight was unable to take ordinary solid food, and his throat since then has required treatment. Probably instead of the aromatic spirits of ammonia the solution of ammonia was substituted, and its corrosive action would explain the symptoms complained of. There was no statement of defence, and the plaintiff having marked the usual interlocutory judgment, the jury assessed the damages at £200.

Irish Branch of the British Dental Association.

A meeting of the Irish Branch of the British Dental Association was held at the College of Surgeons last week, presided over by Mr. Booth Pearsall, F.R.C.S.I. A vote of thanks to the outgoing president (Mr. J. C. Clarke of Belfast) was agreed to, and regret expressed at his absence from illness. Mr. Pearsall having delivered the presidential address, Dr. R. T. Stack read a paper, followed by Dr. A. W. Baker, on "Some Septic Sequelæ of Tooth Extraction." Models of abnormal teeth were exhibited by Mr. O'Meehan, and the proceedings terminated.

Royal College of Surgeons.

Mr. William Thomson has resigned his seat on the Council of the Royal College of Surgeons, and will probably be a candidate for an examinership in surgery at the elections early in May. It is stated that the vacancy on the Council will be filled up on the 28th inst.

Arbitration in a Case of Insurance Claim.

Mrs. Nicholls of Navan, having claimed a sum of £1000, being amount of a policy effected by her late son, a medical man, with the Accident Insurance Company, and he having died from blood poisoning, the matter was left to arbitration. The arbitrators decided, after hearing evidence, that Mrs. Nicholls' claim had been sustained; but as no satisfactory proof of this had in the first instance been furnished to the Insurance Company, it was agreed that the company should be entitled to deduct the costs of the arbitration.

Mr. B. J. Neary, medical officer of the Howth and Baldoyle dispensary district for nearly a quarter of a century, died last week at his residence, Howth, aged fifty-three years.

Dublin, April 14th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

New Procedure in Abscess Treatment.

THE treatment of chronic or cold abscess by the method of aspiration and injection of antiseptic solutions, such as iodoform dissolved in ether, is a favourite plan of some French surgeons, and is the one usually adopted for some time past in the wards of M. Verneuil, now the senior professor of clinical surgery in the Paris Faculty; but it appears to have been reserved in this country to Dr. Piéchaud of Bordeaux to have adapted the method with success to the treatment of acute inflammatory abscesses. Instead of the time-honoured free incision of the most dependent part Dr. Piéchaud aspirates the abscess, after which he injects a solution of 1 in 1000 of corrosive sublimate. For the past ten months he has invariably adopted this method in his hospital practice, and, he declares, with marked success. Even if the skin over the seat of the abscess be thinned and undermined, this is no bar to the procedure, for which he claims as advantages that it is less painful, leads to more rapid healing, and leaves no traces of scar.

Operative Treatment of Goitre.

M. Reverdin of Geneva has performed thyroidectomy in this disease in fourteen cases with only one death. His cases were composed of ten females and four males. He speaks very favourably of the operation, but insists that care must be taken not to remove any but pathological tissue, and that to avoid undue loss of blood each vessel must be progressively and securely tied or compressed. He makes a median incision over the tumour, and advocates enucleation for this latter. Before undertaking operative measures he advises a prolonged trial of treatment by iodoform, which he administers internally in the form of pills.

Cocaine in Minor Buccal Surgery.

M. Combe records 200 minor operations performed on the mouth with the aid of cocaine as an anæsthetic. He claims that its advantages over chloroform or other general anæsthetic are as real as they are apparent—with ordinary care accidents are very rare. He insists on a freshly prepared solution being used, and he advises that one centigramme only be injected at first, and then a lapse of five minutes allowed before the next injection is made; for he has observed that, in those who are disposed to be unfavourably affected by cocaine, warning symptoms become manifest after very small doses.

Pathology and Treatment of Sympathetic Ophthalmia.

The procedure proper to be adopted in this grave affection is often of serious moment and consideration to the surgeon as well as to the patient. The modern microbic theory in medicine would appear to fit in very accurately as an explanation of the pathology of this hitherto insufficiently accounted for affection. And this thesis M. Abadie very ably sustains in the paper which he read at the recent Congress of Surgery. In effect, the microbes invading the wounded or diseased eye gain the optic nerve and chiasma, and so reach the sound organ. At the first sign that the latter is involved M. Abadie advises the free cauterisation with the galvano-cautery of the diseased organ, and the injection into the vitreous of a drop of a solution of 1 in 1000 of sublimate, which injection should be repeated in a few days if necessary. If this be done well and sufficiently early, not only will the sympathetic disease in the sound eye be arrested, but the original affection so modified that it may often be possible to save the other eye. M. Abadie points out that success by this method can be hoped for in recent cases only. In any others enucleation is indicated, and should be followed by mercurial frictions for a prolonged period.

A Case of Hermaphroditism.

At a recent meeting of the Academy of Medicine M. Polaillon read notes of a case of this curious condition, of the reality of which histological investigation stood witness. It was a question of a person twenty-five years of age, to all external appearance a female, but who had never menstruated. The external genital organs were well formed, but the vagina was represented by a little depression, scarcely two centimetres deep. The uterus was completely absent. In the inguinal region were two little tumours, reducible and tender to pressure. These proved to be atrophied testicles, for on histological examination the seminal tubules were readily recognised. There was no trace of prostate.

The Forthcoming Congress of Hygiene at London.

The Minister of the Interior has organised a committee charged to assure the participation of France at the Congress on Hygiene to be held in London next August. The committee has for its honorary president M. Pasteur, and president M. Brouardel, Dean of the Paris Faculty; vice-presidents, M. Minod (director of Public Hygiene at the Ministry of the Interior), M. Bergeron (permanent secretary of the Academy of Medicine), and M. Proust (Inspector-General of Sanitary Services). Amongst the members of what appears to be a very influential and representative committee are Professors Cornil and Grancher, of the Paris Faculty, and Dr. Vintras, of the French Hospital in London. Altogether France promises to be well represented, and to take an important part in the coming Congress.

Paris, April 14th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Koch Treatment.

PROFESSOR KOCH himself was so struck with the advantages of the climate of Egypt and its beneficial effects upon his own health that he has persuaded Messrs. Cook and Sons to construct at Luxor, but upon the west or Thebes side of the Nile, a few houses which might be utilised for tuberculous patients and their attendants during the months of December, January, and February when Cairo is apt to be both cold and damp. It is thought that numbers of phthisical patients will come to Egypt in the future, if not actually to undergo one of the many "cures" now before the medical world, at least to live through a period of convalescence after treatment. The experiments with tuberculin have been discontinued by Mr. Milton for surgical cases, but are still being carried on in Mr. Sandwith's phthisical wards. Dr. Schiess at Alexandria is injecting very large quantities of tuberculin, with some apparent benefit to leprous patients.

Small-pox Epidemics.

During the month of March small-pox has been reported from four provinces of Lower Egypt, but apparently only eight villages have been attacked, giving a total of sixty cases, of whom thirteen have died. The sanitary department is trying to make vaccination compulsory in Egypt for foreigners as well as natives, and for this purpose is introducing weekly a supply of animal vaccine from France, this being found much cheaper than the creation and maintenance of a vaccine institute in Egypt.

Typhus and Relapsing Fevers.

This is the time of year when fevers are reported from various country districts, and as the native officers of health are not yet competent to diagnose one fever from another, they are classed together as "fièvres typhiques." Past experience has shown that enteric fever is not one of the component parts of these outbreaks, but that typhus and relapsing fevers often exist side by side in the same village. In studying the returns, a high mortality is convincing proof of the prevalence of typhus fever, while a low death-rate leads one to believe that the cases are mostly, if not entirely, due to relapsing fever. During the month of March there have been these fevers in all the six provinces of the Delta, no less than twenty-five villages having been attacked. There have been during the past month sixty-six deaths out of a number of 620 reported cases, and there remain under treatment now 248 patients. At the beginning of March the weekly average of new cases was only seventy-seven among the various villages, but for the last two weeks the new cases have been returned as 110 and 169. As the sanitary statistics do not pretend to be very exhaustive, we may assume that many more than 620 of the fellaheen have suffered from one of these fevers during the month of March. No relapsing fever has yet been seen in Cairo, but several cases of "typhus fever"—a few real and many spurious—are being treated in tents in the desert outside the town.

The New Agricultural College.

The Egyptian Government has lately opened a new school under English management, which bids fair to be a great success. The farmer-peasant of this country works hard, but he has not yet learnt that there are aids to farming which his ancestors were not acquainted with. Hence the intelligent Egyptian pasha is clever enough to see that he and his friends may gain something by a little insight into scientific farming, and this accounts for the popularity of the new school. Out of some 260 applicants fifty-nine have been selected to work for four years under Mr. Williamson Wallace and his assistants, and the school can already be congratulated upon having produced three novelties—first-class butter, good potatoes destined for the London market, and a native football team. The school is conducted upon the principle that a young man will be better able to learn to plough if he goes through a preliminary course of daily compulsory football.

The manufacture of good butter, which is now sold to the principal residents of Cairo, is a great boon to the phthisical visitor, who until now has always had to be content with salted butter or margarine from Europe. A dairy of twenty Egyptian cows provides milk yielding 10 per cent. of cream and fresh butter, while the separated milk is being experimentally tried as a special diet at Kasr-el-Aini Hospital for the native patients to whom ordinary milk acts as an aperient.

Cairo, April 5th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Meeting of the Federal Convention.

THE meeting of the Federal Convention at Sydney on Monday next is the most important event in the history of these colonies at the present time. From a medical standpoint federation is a thing much to be desired. A federal government would—though not perhaps at first—have many medical questions to deal with. First and foremost would come the question of quarantine. As I pointed out last month, the quarantine regulations differ in each of the colonies. Victoria has the reputation of being the most erratic in its treatment of foreign arrivals. The Victorians assert that the other colonies are not sufficiently strict in their examination, and they point out that small-pox, cholera, or any other dire disease admitted to one of the eastern colonies would soon spread over the whole continent. It is therefore quite probable that before long a federal quarantine authority will be established to watch over the interests of the colonies at large. Then there is the great question of medical registration. Each colony possesses a distinct register, and the registration certificate of one colony carries no authority to practise across the border. In New South Wales, besides producing diplomas, the person desiring to register must also hand in a recent photograph with an autograph signature, and appear personally before the Medical Board. The other colonies are not so exacting. Many hard-headed people here think it is a far cry to colonial federation, but at present it is so much in people's minds and on their tongues that something is sure to come, whether it be close political union or only consultative action. Amongst the delegates it is interesting to note that the two who stand pre-eminently above their fellows are Sir George Grey and Sir Henry Parkes, both men who have spent their lives amidst political turmoil, and are now, when verging on fourscore years, both eloquent and far-seeing leaders of men. The only medical man in the convention is Dr. Cockburn of Adelaide, the late Premier of South Australia, who is a graduate of the London University.

Koch's Treatment.

The Koch discovery created a great sensation in these colonies when the announcement was made by cable. The various colonial Governments immediately appointed medical delegates to investigate the subject in Berlin, and their return has been awaited with much interest. There are so many phthisical immigrants to these shores every year that the death-rate from phthisis in Melbourne and the other large cities is quite equal to that of London. The spread of the disease amongst the native born Australians has become a very serious matter, and in a country where charlatanism reigns supreme it was to be feared that the Koch treatment would have been run for profit. The action of the Medical Society of Victoria, in calling on the Government to cause the Koch remedy to be included in the list of poisons, and thereby to prevent unqualified persons from using it, is much to be commended. The authorities of the Sydney Hospital have refused for the present to allow experiments to be made in that institution, so that any experience to be acquired must be gained in private practice. The attitude of the profession here with respect to the matter is one of reserve. We are so accustomed to "booms" of various kinds that this last medical "boom" has not caused much surprise.

A Typhoid Fever "Specific."

Undeterred by the evil results arising from the premature disclosure of Dr. Koch's remedy, a Melbourne surgeon of some standing has announced the discovery of a typhoid fever specific. It appears that when operating last year on a case of suppurating hydatids in which the pus had a most offensive odour Dr. O'Hara of Melbourne by some mischance opened up the chyle duct. Immediately the chyle came in contact with the pus the stench ceased as if by magic. Dr. O'Hara was so much struck by this that he handed a bottle of the chyle to a bacteriologist, who made many experiments with a "fungus not unlike common yeast," which he cultivated from the chyle. He found the cerevisia to be a powerful deodorant and germicide. It was fatal to the cultivations of typhoid and diphtheritic bacilli to which it was added, and had cured a case of typhoid fever when given as a last-chance medicine. On these qualities of chyle becoming known to Dr. O'Hara, he used the "fungus" which the bacteriologist had sent him, and, according to his own statement, with great success. Several patients who were *in extremis* from typhoid fever rapidly recovered, and diphtheritic throats on which the remedy had been sprayed quickly got well. Then Dr. O'Hara, who is a leader in the profession and a surgeon to the Alfred Hospital, induced some of his colleagues to try the "specific." They did so, but the trials were carried out in so unsatisfactory a manner that for an accurate estimation of the value of the remedy they were quite useless. On hearing what was going on the committee of the Alfred Hospital very wisely dissociated the institution from the whole business.

Sydney, Feb. 28th.

Obituary.

HENRY PARRELL DAVIS, M.D. ST. AND, M.R.C.S.

WE regret to have to chronicle the death, after a painful illness, of Dr. Henry Parrell Davis. He was born in London in 1817. His father was a well-known practitioner, who lived in Red-lion-square. In his early career Dr. Davis was devoted to the study of classics, and for a few years he taught Latin and Greek in a large school at Ealing. He retained through all his life a great love for these languages, his favourite book being the Greek Testament, which he read even on the day he died. He entered Westminister and Middlesex Hospitals, and qualified in 1841. He assisted his father in a very laborious practice, but in 1846 he married and settled in the north-west of London, where he remained in active practice until 1880, when he retired, much to the regret of his patients, who were deeply attached to him on account of his simple and unaffected manners. He was through all his life a sincere but unostentatious Christian, his motto being *In Deo spes mea*. He leaves behind him three daughters and two sons; both the latter are following their father's profession.

WILLIAM ROYSTON PIKE, M.D. DURH.

DR. ROYSTON PIKE began his professional career by the old-fashioned pupilage to Dr. Michael Foster, then of Huntingdon. He afterwards studied at St. Thomas's Hospital, and became a Licentiate of the Apothecaries' Hall in 1870. Dr. Pike then sailed for Australia as "ship doctor," and remained for a short time in practice at Melbourne as an assistant. Returning to England, he passed the examination for the membership of the Royal College of Surgeons in 1872, and shortly afterwards became visiting surgeon to the out-patients at the Royal Portsmouth Hospital. He had great enthusiasm in his work,

especially in operative surgery and difficult midwifery, and a large scope for practice among the poor was offered to him by his appointment as medical officer for the parish of Southsea. He also acted for a short time as medical officer of health for Southsea. Cultivating a large general practice, he gave up his paid appointments and acted as surgeon for out-patients, and afterwards as full surgeon to the Royal Hospital. By his hospital patients he was regarded as a friend, and in private practice he was very successful, gaining the confidence and esteem of an increasing *clientèle*. Little more than a year ago he graduated as M.D. at the Durham University, and since that time his health has steadily failed. Obscure symptoms pointing to some form of blood-poisoning ended in degenerative disease, with albuminuria and dropsy. After a long rest in the autumn of 1890 Dr. Pike struggled on through the winter, attending several arduous cases, and making a great fight for life and work. Even when laid aside in the autumn, and suffering from urgent dyspnœa, he insisted on accompanying the writer to a very severe case of hæmatemesis. Many medical men have fallen at their posts, stricken down as surely as by the rifle bullet or the sabre stroke, and on that long death-roll must be inscribed the name of William Royston Pike. Dr. Pike was, very shortly before his death (which took place on April 3rd, 1891) appointed senior physician to the Royal Portsmouth Hospital, with which institution his name has been in some way associated for twenty years.

DR. GEORGE BERNARD HOFFMEISTER.

IT is with great regret we have to record the death of Dr. George Bernard Hoffmeister, M.A., M.D., M.R.C.S., at the early age of thirty-two, thus closing a career of exceptional promise and ability. His death was caused by his being thrown from his horse on Tuesday, March 24th, producing concussion of brain, followed by right hemiplegia. Mr. Thomas Smith was immediately summoned, and performed the operation of trephining. The patient's condition fluctuated much from day to day, and did not terminate fatally till the sixteenth day after the accident, consciousness never having been thoroughly regained. Dr. Hoffmeister was educated at Epsom College, afterwards at Gonville and Caius College, Cambridge, whence he proceeded to St. Bartholomew's Hospital. He also studied at the universities of Bonn and Vienna. Amongst other honours he obtained the B.Sc. Lond. (first in honours in Botany), 1879; M.A. Camb., 1884; B.A. (first class Natural Science Tripos, specially distinguished), 1880; M.D., 1890; M.R.C.S. Eng., 1884; gold medalist in Medical Botany of the Apothecaries' Society, 1883; first prizeman Natural Science, Caius College, Cambridge, 1877–80, and Natural Science Scholarship, 1877–84; Shuttleworth Scholarship, Cambridge University, 1879–81; Gilchrist Scholarship, University of London, 1877–79; Epsom Scholarship, St. Bartholomew's Hospital, 1877–84. He was surgeon to the Royal Yacht Squadron; late surgeon to the royal mail steamship *Bengal*, P. & O. Company; house physician to St. Bartholomew's Hospital, 1885; lecturer on Biology, Royal Medical College, Epsom, 1881–84. Among his contributions were the following: "Bismuth and Bismuth Compounds" (*Journ. Med. Soc.*, 1881); "The Influence of Race on the Course and Treatment of Disease," *Practitioner*, 1890. A firm believer in the old quotation, "Mens sana in corpore sano," he distinguished himself in the athletic world and secured many honours. He had ever the greatest love for the sea, and had acquired considerable reputation in the yachting world by his clever handling of small racing yachts. He accompanied Lord and the late Lady Brassey on what proved the latter's last voyage in the yacht *Sunbeam*, and was with Lady Brassey at her sad death. He was appointed, with his father, the late Sir William Hoffmeister and his brother, Dr. William Hoffmeister, as one of the surgeons to the Queen and Royal Family in the Isle of Wight in 1888.

THE SERVICES.

ARMY MEDICAL STAFF.—The undermentioned Surgeons-Major retire on retired pay (dated April 15th, 1891): Henry William Joynt and David Leckie, M.B.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Fleet Surgeon Evelyn R. H. Pollard to the *Orlando* (undated); Staff Surgeon Jas. A. Collot to the *Superb* (dated April 14th, 1891). Surgeons: Walter H. S. Stalkartt to the *Superb* (dated April 14th, 1891); Martin H. Atock to the *Orlando* (undated); John H. Thomas to the *Orlando* (dated April 24th, 1891); Percy W. Bassett-Smith to the *Penguin*, and John L. Barrington to the *Nankin* (both dated April 15th, 1891); Mr. H. F. Temple to be Surgeon and Agent at Budleigh Salterton.

VOLUNTEER CORPS.—*Rifle:* 2nd Volunteer Battalion, the Suffolk Regiment: Henry Cecil Harper, Gent., to be Acting Surgeon (dated April 11th, 1891).—2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): The undermentioned Acting Surgeons to be Surgeons:—H. M. Kemmis and T. L. Laxton (both dated April 11th, 1891).—2nd (Berwickshire) Volunteer Battalion, the King's Own Scottish Borderers: Acting Surgeon T. L. Crooke resigns his appointment (dated April 11th, 1891).—2nd Volunteer Battalion, the Worcestershire Regiment: Acting Surgeon A. C. Keep, M.D., to be Surgeon (dated April 11th, 1891).—3rd (Dundee Highland) Volunteer Battalion, the Black Watch (Royal Highlanders): William Kinnear, M.B., to be Surgeon (dated April 11th, 1891).—3rd Middlesex: George William Henry French, Gent., to be Acting Surgeon (dated April 11th, 1891).—1st Tower Hamlets (the Tower Hamlets Rifle Volunteer Brigade): Acting Surgeon J. D. Pratt, M.D., to be Surgeon (dated April 11th, 1891).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an extraordinary meeting of the Council of the College, held on the 10th inst., the Report of the Committee on the Proposed Regulations and Examinations on the Extension of the Medical Curriculum to Five Years was considered and discussed, but the decision on the subject will not be made public until it has been agreed upon with the Royal College of Physicians.

THE ROYAL BRITISH NURSES' ASSOCIATION.

A MEETING of the Royal British Nurses' Association was held at 20, Hanover-square on Thursday last, at which Sir William Savory, Bart., took the chair. Her Royal Highness Princess Christian was present.

Mr. Bedford Fenwick pointed out that the meeting was convened to consider the position of the Association in view of recent attacks which had been made upon it by certain interested bodies because the Association sought to be registered under the Companies Acts without the word "limited," and without which they would not be legally entitled to receive and administer trust funds. Sir James Crichton Browne, Lord Chancellor's Visitor in Lunacy, in moving the first resolution, took occasion to refer *seriatim* to the arguments which had been urged by the opponents of the Association. He characterised them as "flimsy and sophistical, and in many cases distinctly incorrect." Mr. Brudenell Carter, in seconding, said he had been at a loss to conjecture what reasons could be urged by their opponents against the proposals. He found, however, they had no reasons, but pretexts only of the most frivolous character. Mrs. Bedford Fenwick Dr. Pavy, Dr. Bezly Thorne, and Mrs. Catherine Wood also gave short addresses. Sir Edward Sieveking moved and Sir Joseph Fayrer seconded a vote of thanks to Sir William Savory for presiding. On the motion of the chairman, a vote of thanks to Princess Christian for being present was heartily accorded. We reserve a fuller account of the meeting for our next issue.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the next quarterly meeting of the Medico-Psychological Association, to be held at Brislington House, Bristol, on May 1st, at 3 P.M., the following papers will be read:—Dr. Hack Tuke, on "Pritchard and Symonds in especial relation to Mental Science." Dr. Weatherly, on "The Use and Abuse of Hyoscine." Dr. Bonville Fox, "Notes on a few unusual cases of General Paralysis."

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board at a meeting of the Examiners on the 9th inst.:—

Anatomy and Physiology.—W. E. Leetham Horner, Joseph E. Waite, T. Villiers Crosby, and G. H. Cawley Way, of University College; John W. Haines, Alexander C. Gurney, J. Burnell Great-Rex, G. Raymond Fox, Courtney H. Drake, and J. Lyttleton Dalby, of St. Bartholomew's Hospital; Edward Bromet, Alfred E. Russell, Sidney W. F. Richardson, and Henry W. Harding, of St. Thomas's Hospital; Charles J. E. Cock and William T. White, of Charing-cross Hospital; C. Kemble James, of Middlesex Hospital; Nathaniel D. S. Towne and C. Poulett Harris, of London Hospital; W. Charrington Wood and Mark A. Saltmarsh, of St. Mary's Hospital; F. Kenneth Wilson, of Westminster Hospital; and Courtnay R. Colley, of Guy's Hospital.

Anatomy only.—Dan Davies, of London Hospital; Leonard J. Miskin, of St. Mary's Hospital; Charles H. Nicholson, of Middlesex Hospital; H. Gallway Larnder, of St. Mary's Hospital; and Barnet Saul, of Charing-cross Hospital.

Physiology only.—Hubert Williams, of Middlesex Hospital; A. Walter Austen and William H. Chute, of Westminster Hospital; and Ernest G. Annis, of Guy's Hospital.

Passed on the 10th inst.:—

Anatomy and Physiology.—L. E. V. Every-Clayton, of Guy's Hospital; Albert W. Riley and William H. Thomas, of London Hospital; Frederic Cecil Robinson, Walter H. Pollard, E. Lawson Pawlett, Harold B. Meakin, and Thomas Hampton, of St. Bartholomew's Hospital; W. West Linington, Antony A. Martin, Robert Corfe, and Colin D. Lindsey, of St. Mary's Hospital; John Harper and Arthur Dobson, of St. Thomas's Hospital; F. Nestield Cookson, of Middlesex Hospital; Charles E. Wallis and Frederick C. Spawson, of King's College; H. Matthew Dowler and C. Dudley Garrett, of Westminster Hospital; and H. R. Belcher Hickman, of St. George's Hospital.

Anatomy only.—Hobart J. W. Barlee and Francis H. Bailey-King, of Middlesex Hospital; Philip G. Williams, of London Hospital; and Arnold Stockton, of King's College.

Physiology only.—Arthur Barnes, of Charing-cross Hospital; Alexander M. Watts, of University College; Frederick A. Cooke, of St. Mary's Hospital; William E. Lee, of St. Bartholomew's Hospital; and Archibald J. Campbell, of St. Thomas's Hospital.

Passed on the 13th inst.:—

Anatomy and Physiology.—J. Macpherson Stewart and T. Bernard Stedman, of University College; Charles G. Cory and Sydney Cornish, of St. Bartholomew's Hospital; W. Archibald Propert, of St. George's Hospital; Wilfred Fleming, of Westminster Hospital; Daniel E. Evans, H. Gwynne Lawrence, Edgar J. Morgan, and G. Bushman Riddick, of St. Mary's Hospital; J. E. Gilbert Rogers, of London Hospital; Percy J. Probyn and T. Elgee Cundy, of Charing-cross Hospital; Charles H. Watson and W. Pope Seed, of Middlesex Hospital; R. Hilton Fagge and G. Leslie Eastes, of Guy's Hospital.

Anatomy only.—Leonard Harman, of St. Thomas's Hospital; A. Condell Strand, of Middlesex Hospital; Herbert C. Wimble, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; and J. West, Summerhays, of St. Mary's Hospital.

Physiology only.—T. H. Pryce Morris, of Middlesex Hospital; William R. Larbalestier and H. Walker Whitley, of Charing cross Hospital; H. Naunton Robson, of St. Thomas's Hospital; and Charles H. Wilmer, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Passed on the 14th inst.:—

Anatomy and Physiology.—William Gardner and John Garrett, of St. Mary's Hospital; Hugh M. Rigby, Victor J. Batteson, and Harry E. B. Porter, of London Hospital; Thomas W. W. Burgess, Percy C. Barford, Evelyn G. B. Adams, Percy E. Adams, Frederick W. Robertson, and Percy E. Turner, of St. Bartholomew's Hospital; Walter F. Henley, of Charing-cross Hospital; John F. Sarjeant, William Way, Wilfred E. Hudleston, and John Kekwick, of Middlesex Hospital; Elias F. Harwood, Arthur P. Nuttall, John P. Kitson, and Thomas R. Llewellyn, of University College; Frederick S. Penny, of King's College; George A. Clarkson, of St. George's Hospital; and Arthur F. W. King, of St. Thomas's Hospital.

Anatomy only.—Harold J. K. Bamfield, John H. Campbell, and John B. Yelf, of St. Mary's Hospital; Henry A. Andrews, of St. Bartholomew's Hospital; Edgar J. Rowbotham and Hubert A. Madge, of Charing-cross Hospital; and Walter L. Stuart, of Guy's Hospital.

Physiology only.—Moses J. Reubens, of Grant Medical College, Bombay

Passed on the 15th inst.:—

Anatomy and Physiology.—Reginald N. Weekes, H. T. M. Whitling, C. Mackenzie Hewer, and Robert H. Wilkin, of St. Bartholomew's Hospital; C. Beauchamp Hall, of St. Mary's Hospital; Moyle Breton, of St. George's Hospital; F. J. Godwin and Edmund B. Jones, of Charing-cross Hospital; W. David Jones, Adam Cowes, and J. Lloyd Davies, of University College; Charles H. Dickens and P. Clennell Fenwick, of St. Thomas's Hospital; Henry W. Collier, Guy E. Manning, and Harold P. Barker, of Guy's Hospital; Martin W. Loy, of London Hospital; Mark Farrant, of Westminster Hospital; and Ernest Playfair, of King's College.

Anatomy only.—W. Berkeley Murray and Richard S. Olver, of King's College; Alfred J. Grant, of St. Thomas's Hospital; and William Wyllys, of St. Bartholomew's Hospital.

Physiology only.—T. Dobson Bell, of University College; Arthur J. Mathison, of Guy's Hospital; and George R. Harcourt, of St. Thomas's Hospital.

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the First Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):—

John Ewing Adam, Andrew Phillips Aitken, John Allan, John Gibson Anderson, John Bain, David Blair, M.A., James Boyle, Walter Buchanan, Edward Napier Burnett, Archibald Campbell, Thomas R. A. A. G. Crawford, Thomas Crosaan, James Donaldson, Duncan Drummond, William Moyes Duff, James Findlay, William David Findlay, Robert Scott Frew, Robert Howieson Gemmell, Ernest William Graham, Thos. Holmes, William Humphreys Jamison, Edgar Milwynne Jenkins, John Connan Lauder, John Herbert Lawson, John Joseph Lowell, James Wm. van Millingen, Alan Muir, Wm. Edgar Macharg, Chas. M'Kay, John M'Kenna, Jas. Campbell M'Neillie, Alfred George Newell, Peter Patton Petrie, M.A., Wm. Salmond, Joseph Scott, John Selkirk, M.A., Henry Beveridge Smith, Thos. David Smith, James Thomson, M.A., Robert Nicol White.

The following gentlemen have passed the Second Professional Examination:—

Walter Isaac Buchanan, Archibald Prentice Campbell, David James MacGoun Campbell, William Campbell, John Joseph Carruthers, David Charters, Thomas Colvin, William Copland, William James Couper, Robinson Ruddock Coyle, James Conway Davies, John Stanley Davies, M.A., George Edgar, James Donald Finlay, Alfred Forrest, M.A., Henry Niven Gardiner, Alfred Alex. Cumming Grant, David Fraser Harris, B.Sc., William Munn Hunter, James Jack, Henry Edward Jones, Alexander Kelso, David Millar King, William Anderson Kirkwood, James Lang, Robert Langmuir, M.A., Robert M'Farlane Marshall, Thomas Burns Marshall, James Binnie Millar, David Ramsay Miller, Edward James Morris, John Morrison, Wm. M'Niven Muat, Wm. Muir (Paisley), Colin Campbell M'Call, Alex. Hutchison M'Cracken, James Morton MacLauchlan, John Alfred Naismith, George Nicoll, John Paxton, James Pettigrew, Eugene Louis Pollonais, Archibald Robertson, M.A., Hector Monteith Robertson, Francis Small, Nathaniel Stevenson, M.A., Robert Tennent, James Thomson, Alfred Webster, John Cameron Young.

The following gentlemen have passed the Third Professional Examination, including, in the cases marked with asterisks, the subject of Pathology:—

James Aitken, William Limont Brown, Adam Guthrie Burrell, *Alexander Baillie Craig, John Alexander Creighton, John David Davies, Donald Stewart Dewar, Robinson Simpson Dickson, Thos. Divine, *Neil Downie, *Andrew Findlay, Robert Forsyth, *David Frame, M.A., *David Wyllie Girvan, *John Green, John Atkinson Harrison, James Hunter, Hugh Kerr, M.A., David Clark Laird, *Peter Alexander Laird, James Lamont, John Lindsay, M.A., Jas. Buchan Littlejohn, Samuel T. M'Clintock Lowry, *Robt. Mortimer Malcolm, *William Cochrane Murray, Alex. Christie M'Arthur, Donald Douglas Macdonald, *Donald Neil Macfarlane, *John M'Gregor, *Charles Hugh M'Ilwraith, M.A., Alexander John M'Kechnie, John Pearson, Henry Joseph Rankin, *David Smith, Peter Maclean Smyth, *Maurice Tancred Stack, *William Steel, *William Caldwell Steele, John Stewart, David Robert Thomson Strong, *George Mervyn Sydenham, *James Allan Wilson, Charles Frederick Wylie.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF IRELAND: CONJOINT SCHEME.—The following have passed the First Professional Examination:—

A. T. Benson, J. G. Berne, C. A. Black, E. A. Bourke, E. A. Culligan, G. S. Davidge, C. J. Fallon, Marie Goodwin, R. Hassard, G. Martin, E. J. Moore, D. O'Brien, M. G. Sterling, W. F. Thomline, W. A. Twigg, E. Tynan, and J. H. Walsh.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOLS OF SURGERY.—The following prizes have been awarded:—*Practice of Medicine:* 1. E. J. Goode. 2. Acheson Aiken and J. A. Walsh (equal). *Chemistry:* First Prize—E. A. Bourke and G. Sandys Davidge (equal). *Midwifery:* 1. S. Kelly. 2. John Gilbert. *Surgery:* 1. W. J. Trewhella. 2. J. J. Brennan.—Mr. A. G. Chance has been admitted a Fellow of the College.

PHARMACEUTICAL SOCIETY OF IRELAND.—The following have obtained the licence:—L. Murray, S. Adamson, J. S. Wilson, and W. White.—The undernamed have passed the examination to act as registered Druggists for the sale of the scheduled poisons:—H. C. Backhouse, R. S. Chapman, T. J. Connery, J. Darcy, D. Donohoe, H. Farrell, J. A. Gardiner, T. Gordon, W. Gore, B. Haydock, E. M. Hewetson, F. C. Judge, L. Kingsmill, J. R. Midleton, J. Mullen, J. J. O'Donnell, J. H. Parker, R. H. Percy, R. Poole, P. C. Roche, R. E. Scarlett, W. Selkirk, W. Wade, R. T. White, and W. Willis.

THE WATER-SUPPLY OF CHESTER.—A well-attended meeting of the Chester Medical Society has been held at the Chester Infirmary to discuss the water-supply of the city. Dr. Roberts presided. Dr. Dobie read a paper on the subject. He stated his belief that the river Dee was a contaminated source of supply, and to be condemned on that ground. He submitted a motion to that effect, and considerable discussion ensued. Ultimately a resolution was adopted that the Town Council be requested to ask the Local Government Board to hold a public inquiry into the conditions of the water service of Chester.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Mr. Arthur Gerald Chance, having passed the necessary examination, has been admitted a Fellow of the College.

LONGEVITY IN IRELAND.—During the December quarter there were five deaths of persons registered who were centenarians. Two of these were 100 years, two 103 years, and one 106 years of age.

VEGETARIANISM.—The London Vegetarian Society has arranged to hold a public debate at the Memorial Hall on Thursday, April 23rd, when they will maintain the advantages of pulses, grains, fruits, and nuts *versus* fish, flesh, and fowl. Supporters and opponents should at once send in their names to the organising secretary, Memorial Hall, Farringdon-street, E.C.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—Mr. B. L. Cohen presided at the festival dinner of this institution, held at the Hôtel Métropole, Whitehall, on Wednesday. A large company was present. The chairman, in proposing "Success to the Hospital," urged the claims of the charity, and solicited a generous response. The extension of the hospital had become necessary to cope with the growing demands upon it, and £6500 was specially desired to be raised for that purpose, and to add thirty new beds. Towards this object £2500 had already been contributed. The secretary subsequently announced a long list of subscriptions.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—At the quarterly court of directors of this Society, held on April 8th, the President, Sir James Paget, in the chair, one new member was elected and the deaths of two reported. A fresh application for a grant was made by a widow, and an immediate grant of ten guineas was made pending the inquiry into the case. The death of one widow was announced, and one had ceased to apply for assistance, and two orphans had become ineligible through age for further grants. Applications for grants were read from sixty-two widows, twelve orphans, and three orphans on the Copeland Fund, and £1383 10*s* was recommended to be divided among them at the next court. The expenses of the quarter were £68 9*s*. The following gentlemen were nominated for election as directors at the annual general meeting:—Dr. Russell Reynolds, in the place of Dr. Matthews Duncan, deceased; and Dr. Ogle, Dr. Church, Mr. Durham, Mr. Vasey, Dr. Hickman, and Mr. G. E. Keele in the place of the six senior directors, who retire. The annual general meeting was fixed to be held on Thursday, May 28th, at 5 o'clock.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Thos. Walker of Doncaster bequeathed £500 to the Doncaster Infirmary.—The Companies of Merchant Taylors and Mercers have made grants of £200 and £500 respectively to the Buildings Completion Fund of the Royal Free Hospital, Gray's-inn-road.—Under the will of the late Mrs. Jane Entwistle of Reading and Tunbridge Wells, the National Hospital for the Paralysed and Epileptic and the Hospital for Sick Children, Great Ormond-street, receive legacies of £200 each.—The late Mayor, James Atkinson, of Cleveland-square, London, bequeathed conditional legacies as under—viz., £2000 to the Royal Hospital for Diseases of the Chest, £1000 each to St. George's Hospital and the Cancer Hospital, and £500 each to the Westminster Dispensary, the Victoria Hospital for Sick Children, and the National Convalescent Institution, Margate.—Mr. W. Cramond, late of Derby, bequeathed £500 each to the Derbyshire Infirmary and Children's Hospital, Derby.—Mr. Philip Horsman, late of Wolverhampton, bequeathed £800 each to the Wolverhampton and Staffordshire General Hospital and the Wolverhampton Eye Infirmary.—The late Mr. F. B. Ellison, of Hazlecroft, contributed £250 to the Harrogate Cottage Hospital.—Mr. B. T. Woodd, J. P., of Knaresborough, has forwarded a donation of £100 to the treasurer of the Royal Bath Hospital.—The Company of Goldsmiths has made a grant of £1000 towards the completion of the buildings of the Great Northern Central Hospital, Holloway-road.—The late Mr. A. Pickard of Ossett bequeathed £1000 each to the Leeds Infirmary and Wakefield Infirmary, and £250 to the Leeds Hospital for Women.—The Clothworkers' Livery Company has granted a further donation of £50 to the National Hospital for Consumption, Ventnor.

ACCIDENTAL DEATH OF A MEDICAL PRACTITIONER. An inquest was held at the Coroner's Court, Paddington, last week, on the body of Mr. George Henry Blackmore, L.R.C.P. Lond., M.R.C.S. From the evidence it appears that on the 30th ult., whilst being driven by his coachman in the St. Peter's-road, Hampstead, the horses took fright and bolted. The carriage was upset, and Mr. Blackmore was dragged along for some distance, sustaining severe fractures to the ankle and ankle-joint. He died from lockjaw in the St. Mary's Hospital on the following Friday. The coachman was uninjured.

PRESENTATIONS.—On Easter Tuesday a very handsome testimonial was presented to Dr. Walter Grosett Collins as a parting gift from patients and friends on the occasion of his leaving Midhurst. The present consists of a silver tea and coffee service, together with a silver kettle and stand, the latter bearing a commemorative inscription. The whole are enclosed in a substantial case of polished zebra wood.—Dr. G. M. Lowe of Lincoln has been presented by the ladies of the city and district, composing a class of the St. John Ambulance Association, with a carriage companion, containing a clock, memoranda, and the usual appendages, as an expression of gratitude for his able instruction to them on rendering first aid to the injured.

KING'S COLLEGE HOSPITAL.—The annual festival dinner of this hospital was held at the Whitehall Rooms of the Hôtel Métropole on the 10th inst., when new donations and annual subscriptions were announced amounting to £2388 10*s*. 6*d*. The Lord Mayor made a strong appeal for increased support, especially in view of the recent opening of two wards of twenty-eight beds, making a total of 220 in daily work. All the beds in the hospital are now occupied, and the working average is greater than at any period in the history of the hospital. The Lord Mayor and Lady Mayoress had previously visited the wards, and were much pleased at the many modern improvements which were pointed out to them, for in late years nearly £10,000 had been spent by the committee in remodelling and improving the sanitary arrangements.

SMALL-POX IN ST. LOUIS, MONTREAL.—A man stricken with small-pox in a lodging-house was taken to the City Hospital and placed in an isolated ward. He died a few days later. The ward was fumigated and the clothes burned. A fortnight later two patients were seized with the disease and hurried to quarantine. The ward they occupied was fumigated and the clothing destroyed. Subsequently a waiter in a restaurant, who was a patient in the hospital, was taken with the malady, and he too went down to quarantine. The room was disinfected, and his clothing destroyed. It was now thought the disease was subdued. But it appeared again at the aforesaid lodging-house, in the person of a man who had been there when the first case occurred, and had left, coming back only a few days afterwards. In this way he escaped the fumigation. At the same time another case made its appearance at the City Hospital. This patient was also sent to quarantine, and was still there.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on April 14th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	150	49	..	43	2	244	442
North-Western Hospital	123	46	..	14	1	184	443
Western ,,	148	13	..	13	1	175	224
South-Western ,,	147	24	..	13	1	184	340
South-Eastern ,,	174	11	..	21*	1	207	461
Northern ,,	205	16	..	10	..	231	480
Totals .. — —	947	158	..	114	6	1225	2391

SMALL-POX.—*Atlas* hospital ship, 7.

* Infant with mother.

MEDICAL NOTES IN PARLIAMENT.

The Disposal of the Dead.

IN the House of Commons on Tuesday night it was the intention of Dr. Cameron to call attention to the state of the law respecting the disposal of the dead, but the discussion on local government in rural districts left him no opportunity. Dr. Cameron intended to move for the appointment of a Select Committee to inquire into the sufficiency of the existing law as to the disposal of the dead, for securing an accurate record of the causes of death in all cases, and especially for detecting them where death may have been due to poison, violence, or criminal neglect. Having in view the advanced period of the session, it is doubtful whether Dr. Cameron will be able to find an opportunity for moving his motion before the prorogation.

The Pharmacy Acts Amendment Bill.

Mr. Hozier has given notice that when this Bill comes on for second reading he will move its rejection.

Ether Drinking in Ireland.

Mr. Samuel Smith has given notice of a question for Monday next, with reference to ether drinking in the north of Ireland. He will ask the Chief Secretary whether he is aware that ether is sold there by "chemists, publicans, grocers, and hawkers or ragmen, who go through the country districts; and whether the Government can see their way "to put down the sale of this drug by reimposing the tax upon it, or otherwise."

Stillbirth Interments.

On Thursday there was ordered, on the motion of Dr. Cameron, a return showing (1) the number of stillbirths interred during the year 1890 in each of the Burial Board Cemeteries in England and Wales enumerated in the Local Government Manual for 1891; (2) the number of such stillbirths interred in each such cemetery without a certificate of a registered medical practitioner; (3) the total number of interments other than of stillbirths; (4) the aggregate number of interments in the said Burial Board Cemeteries under each of the preceding sub-heads; and (5) the total number of deaths registered in England and Wales during the year 1890.

THE METROPOLITAN HOSPITALS INQUIRY.

The Select Committee of the House of Lords on the Metropolitan Hospitals resumed their inquiry on Thursday, Earl Sandhurst presiding.

Staff Appointments in London Hospitals.

Dr. J. W. Moore, Fellow and Registrar of the Royal College of Physicians in Ireland, came forward to give evidence as to the exclusion of members of that body from the staff appointments in London hospitals. He knew of no case, he said, in which a member of his college had obtained one of those appointments without first getting a London qualification. He did not go so far as to say that the rule was universal, but there were many hospitals where it applied. He did not know of any hospital where it did not apply, but he should be sorry to say that it was universal. In the case of a provincial hospital a graduate of the University of Dublin applied not long since for a staff appointment, and he was declared to be ineligible. A man with perhaps twenty or twenty-five years' practice, and holding the highest qualification of his own college, would be very reluctant to subject himself to the lowest grade examination in a sister college in order to qualify for an appointment. He would not care about it. It would be very unpleasant. His college had not approached the London authorities, but had sent a statement of their case to various institutions in England. Until 1876 an exclusive rule existed in Ireland with reference to all the county infirmaries. This rule required that every successful candidate for county infirmary appointment should be a licentiate of the Royal College of Surgeons in Ireland. That rule was abrogated in 1876 by Act of Parliament. All these appointments were eagerly sought for by the leading men in Ireland, and were now open to all registered medical practitioners. What they asked from England was reciprocity. One of the surgeons in his hospital—the Meath—held no Irish qualification in surgery; he was a licentiate of Edinburgh. The exclusive policy adopted by the London hospitals was felt to be an injustice and a wrong.—By Lord Monkswell: The discipline exercised by the Irish Colleges was very stringent; it was even more stringent than that of the London authorities. Quite recently they had erased from their roll of licentiates the name of a gentleman who was accused and convicted of unprofessional conduct. From time to time it had been his duty as Registrar of the College of Physicians to require explanations from erring licentiates. He did not think there would be any occasion for putting Irish licentiates under the discipline of the London authorities were they allowed to hold appointments in the London hospitals. The powers of the Irish Colleges and those of the General Medical Council were sufficient to meet the case.—By Lord Cathcart: The grievance applied to licentiates from Scotland, where the same disaffection prevailed.—By the Earl of Lauderdale: They had a large number of Scotch practitioners in Ireland, but he could not recall any cases of English practitioners.—By the Chairman: The way he looked at this question was that the College of Physicians had 700 or 800 licentiates practising in England, and those men were excluded from reaping the reward of their professional knowledge and experience by this rule. Their education also was interfered with.—The Earl of Arran: As a rule, you prefer in Ireland having men brought up in your own hospital to strangers?—Dr. Moore: As a matter of fact, the competition for the Dublin hospitals does not materially extend to England and Scotland. We have got very good men in Ireland, but if a first-class man came over from London his candidature would receive every consideration, and if he proved to be the better man he would get the appointment.

Mr. Henry Gray Croly, President of the Royal College of Surgeons in Ireland, said that his College felt that their licentiates had passed a very stringent examination. During the Crimean War they found that men who failed to pass that examination went over to London and came back with diplomas in their pockets. Their examination in surgery, in fact, was much more stringent than the examination in London. From the advertisements inserted with regard to Liverpool and Bristol Infirmaries, his College felt that only English licentiates could compete for the appointments advertised. Those advertisements were a reflection upon the Irish bodies. They considered in Ireland that their teaching was quite equal to that in London; it was not a nice thing to say it was superior. He could not give the name of any distinguished man who had been refused an appointment in a London hospital because of the want of the London qualification. He knew, however, that if he himself went to Bristol and sought the appointment in the infirmary there, he would be told that he was ineligible.

The West-end Hospital for Diseases of the Nervous System.

The next witness was Major-General T. W. Mercier, Chairman of the Board of Management of the West-end Hospital for Paralysis and Epilepsy. He stated that the hospital was founded twelve or fourteen years ago. It was not entirely a free hospital, although no person was refused treatment because of his inability to pay for it. Many of the applicants desired to make some payment. Last year they received £497 from patients. The hospital was at present being rebuilt, and would be ready for occupation in June or July, when they would have forty-five and probably sixty beds available for patients. The funds were derived entirely from public subscriptions. They received a grant from the Hospital Saturday Fund, but nothing from the Hospital Sunday Fund. No reasons had been given for the refusal of assistance from the latter fund. He believed the committee had heard evil reports of the hospital. There had been differences of opinion between the former chairman (Lord Robert Montagu) and the medical staff, and those differences had led to very disagreeable incidents on the Board.

Dr. Tibbits, the honorary medical superintendent of the hospital, said he was the founder of the institution, and the funds in the first instance came from his friends. The Ice Carnival two years ago yielded a net profit of £1400, but "The Coming Race" at the Albert Hall resulted in a loss, which, he might say, fell on his shoulders alone. He had no idea why the hospital was refused a grant from the Hospital Sunday Fund. For a time the medical profession made a "dead set" against the hospital. There was always jealousy in the medical profession when a special hospital was founded. He contended that a medical man had no time to treat a single patient for three-quarters of an hour, as massage required, and that massage demanded special training. Therefore it was that he trained nurses in the work of massage. The medical profession, on the other hand, contended that the doctor only should treat the patient. It was simply the trades unionism of the mass of the medical profession that he had to contend against when he started the hospital.—By Lord Cathcart: No woman would ever be treated with his permission for disease of the uterus with massage. It was a monstrous thing and ought never to be done. Although the building had been used as a butcher's shop, its drains were put in order when adapted for a hospital.—By the Earl of Arran: The school of Massage, he was afraid, did not pay its own expenses. Times were not prosperous. Any profit would go to the proprietor of the schools, who was his wife. At the end of her training, the nurse underwent an examination before she received a certificate of efficiency. As soon as she got her certificate she could go anywhere she liked, and make what charge for her services she chose. The average fee per hour was five shillings, but if a nurse could get seven shillings so much the better.—By the Earl of Kimberley: The only connexion that the school, had with the hospital was that the latter received the gratuitous services of the students, and that he was allowed to lecture to them in the hospital. It was the case that uncertified masseuses were allowed to treat patients without the presence of medical men, but under the written direction of medical men. This was the only practicable system, and he regarded it as satisfactory in the interest of the patients.—By the Chairman: There had never been any profit from the hospital for the founder. It had been a dead loss to him.

Mr. Alexander Dowell, honorary secretary of the hospital, said he did not reside in the institution, but visited it twice a week, and sometimes oftener. In the building now demolished, the space was so limited that it became almost impossible to carry on the work. They could not afford room for resident officers. The system of appealing to the public for funds suited their case. Last year they had a surplus, which of course was swallowed up by the expenses of the new building. They had already spent £5000 upon the building.

The Committee afterwards adjourned.

FACTORIES AND WORKSHOPS BILL.

PROPOSAL TO ABOLISH CERTIFYING SURGEONS.

The Standing Committee on Trade appointed to consider this Bill met on Monday, and disposed of the amendments relating to periods of employment.

On Clause 19 coming up for discussion, Mr. Macartney proposed to leave out Subsection 1, which states "that after this Act certificates of fitness for employment of children and young persons shall not be required," thus abolishing the office of the certifying surgeon.

Mr. Mundella said that this clause had come upon the country as a surprise. The Home Secretary believed that the functions of the certifying surgeons were practically obsolete, but those Home Secretaries who had the care of the first Factory Acts had insisted on no point so strongly as that the factory surgeon should be maintained. They had been of the greatest value in protecting children and persons who were in an unfit condition for working. The right hon. gentleman had said that since the passing of the Act of 1870 there was no necessity for certifying surgeons, but the register up to 1879 showed their necessity by the returns. Now no return was required, but several certifying surgeons had forwarded to him their own private returns. In one case the persons presented numbered 334, certificates granted 239, and children rejected as being unfit for employment 95. A statement was put into his hands on Friday, and he had seen some of the gentlemen whose names appeared on that list, a list of private records kept by nineteen certifying surgeons since the necessity of keeping a record was omitted from the Act of 1870. Dr. Pearce of Manchester had kept a record for twenty years of every child presented to him and of every child rejected by him, and it shows his average refusal of children per annum, taking the last three years, amounted to 168 children. Out of 4000 children, 1313 were refused. Dr. Pearce was present, and was prepared to place his

notes for the last twenty years in the hands of the Home Secretary. Instead of abolishing the certifying surgeons, he thought their functions ought to be extended. Another very important document had been circulated by the four factory surgeons of Leeds, in which they spoke of children who had been examined by them and found to be suffering from syphilitic sores in the mouth, scarlet fever, and smallpox. He could go through probably fifteen of these documents showing the extent of the rejections and the terrible kinds of diseases with which they had to deal. He had been connected with factories all his life, and he could see no reason why the workmen in Lancashire should take exception to the certifying factory surgeons until he learned that the operatives had to pay the fee of the certifying surgeon; and he had heard of a number of cases in which employers had charged parents 2*s.* 6*d.* for the fee, although only 6*d.* had to be paid to the surgeon in respect of each child. The statement concerning the charges made there took him by surprise. He had never heard in his life before that the employer charged the child for the surgical examination. He was sorry to say that was the practice in Lancashire. Mr. Coddington: Such a thing is unknown in Lancashire. Mr. Mundella: If the hon. member had only made inquiry of some of his own friends who were within his immediate reach, he would have no difficulty in ascertaining the accuracy of the statement. There had been certifying surgeons who had brought into discredit the whole thing by the perfunctory manner in which they have discharged their duties. He hoped that when the next inspectors of factories were appointed a medical inspector would be chosen, who should keep his eye upon the way in which certifying surgeons did their duty. There were, on the other hand, men who performed their duties under great difficulties, socially and otherwise, meeting with a good deal of resistance from employers and others. He hoped the Home Secretary would take care that what had been pronounced by such men as Lord Shaftesbury and Lord Cross to be of importance in the working of the Factory Acts should be continued, and that it should remain complete and thorough and effectual.

Mr. Matthews, in placing before the committee his position in relation to the Bill, assured them that at the first start in this matter he had no preconceived opinion at all, but in two successive years, 1889 and 1890, he received two deputations of the utmost weight and importance representing the manufacturers and the operatives of Lancashire, who came and said to him unanimously that this institution of certifying surgeons had degenerated into a mere farce. Mr. James Mawdsley of Manchester, a working man of twenty years' experience, said to him, "I have never in the course of my own personal experience come across a single case where a child had been objected to by a certifying surgeon on account of disease, or anything except want of age." (Mr. Mundella: He ought to know better.) In 1889 similar statements were laid before him. He then saw a deputation of factory surgeons, and he was bound to say that these gentlemen made out a very miserable case, and none of the figures which we have in such abundance to-day were forthcoming. Having weighed the balance of evidence as well as he could, he came to the conclusion that this was a burden to the employers and to the operatives, who are charged one-half of the fee. By Subsection IV. of the principal Act it is provided "that the employer may deduct the fee or any part thereof, not exceeding in any case 3*d.*, from the wages of the person for whom the certificate was granted." Now one of the reasons that acted upon his mind in putting this clause in the Bill was that this initial certificate of the capacity to work either went too far or not far enough. It was not satisfactory. Supposing a child changed his employment from one mill to another four times in a month, he must by law have four certificates of fitness. Although there was no change in the circumstances of the child, there must be a fresh certificate of fitness for every fresh employment. And, on the other hand, however long a child continues in the same employment, he never comes under review of the certifying surgeons again, and therefore this certificate of fitness is of little use for the purpose for which it is intended. He could not help thinking that labour in mines required much more physical strength and energy than was required in factories, but no certificate of fitness was required for that labour. It struck him that the clause requiring examination by factory surgeons was a survival of the early days of Lord Shaftesbury, when abuses with regard to children were brought before Parliament; but that state of things had passed away, and when this Bill was drawn the weight of the evidence before him was enormously on the side of those who objected to the continuance of the factory surgeons. Since the Bill has been before the House of Commons these gentlemen have been stirred up. He could not get from them anything like the percentages of cases rejected that had been placed before them to-day. At the same time, giving them all the consideration he could, he did not think that the benefits derived from the certificates of fitness were sufficient to countervail the burden placed upon the employers. It seemed to him that if they imposed penalties upon the employers of an unfit child and penalties upon the parent, and gave the power to the inspector which is given in section 29 of the principal Act, which was retained, they had done what was sufficient. It was not a question, however, upon which he felt strongly himself.

Mr. McLean (Oldham) was not fully satisfied in his own mind whether it was a good thing to abolish this office. He was in Lancashire the previous night, and talking to a number of working men on the subject. He did not think there was the same strong feeling in favour of the abolition of the certifying surgeons as there was previously. He should not oppose the doing away of this clause of the Bill.

Dr. Farquharson pointed out that though Lancashire was an important place, it was necessary to get evidence from other parts of the country, and the evidence from other great centres of labour in England, as well as from Scotland and Ireland, was of the most complete and satisfactory character as regards the retaining of the factory surgeons. Mr. Mundella had said that there was a considerable mass of evidence of their good work for the benefit of children and for the community at large in rejecting a large number of weakly children who ought not to be employed, and in checking infectious diseases, which but for the interposition of the surgeon would frequently enter workshops and factories. A great number of the employers of labour were in favour of the surgeons. Sir H. Vivian said that "the present system worked well, and ought not to be lightly changed." They had very strong evidence indeed from employers of labour in Stockton, Blackburn, Belfast, Manchester, Bristol, Waterford, Radcliffe, Dublin, Preston, Derby, Bury, Accrington, Ashton, Barrow, and Chipping Norton. In addition to the large number of children rejected, there were many who could not be brought forward in evidence because there was the deterrent influence at work which prevented parents from bringing up weakly children for examination, since they well knew that they would be rejected. A great many of these cases were settled out of court, so to speak; that is to say, the parent would bring up the child to the doctor and ask whether he thought the child would pass or not, and very often the answer was, "No." An opinion of this kind was usually given gratuitously. He agreed with the Home Secretary that it would be an advantage that the inspection should be continuous, and that the surgeon should be able to keep his eye on the child during the whole period of his industrial employment, so as to see that the work was not pressed too heavily upon him, and decide in some cases that they should change from one employment to another. He referred to public opinion on the subject. He had presented petitions from several of the most important medical institutions, colleges, and schools, as well as from medical men, in addition to which he was about to receive one from the Society for the Prevention of Cruelty to Children, showing that the clause was neither a purely medical one nor one for the employers of labour, but should be viewed from the standpoint of humanity and general hygiene. It was also rather a hard thing to deprive so many men of a certain proportion of their income, a considerable number of whom depended entirely on this certification for their professional income. Under these circumstances it would be right and proper to give compensation, which, however, would be very difficult to assess. He referred to the two deputations, and observed that one of the principal speakers, Mr. Buckley, put forward as an advocate for retaining the nineteenth clause, gave evidence by saying that this imposed a tax of £80,000 a year on the employers, and it was necessary for the Home Secretary to point out that the cost was only £35,000.

Sir W. Houldsworth (Manchester) had heard nothing from the employers except a determined desire on their part that the certifying surgeons should be done away with, and the statistics furnished within the last few weeks were complete news to him, and to most of those who had any experience in factory work. Parents, as a rule, did not unduly press children who were incapable of doing work. The children were employed by the piece worker, who was, of all persons, the most interested in having no child working with him who was unfit for work. He sympathised with those who view this question upon the grounds of humanity, but they must go a great deal further than they did. Periodical and systematic inspection of all the children in factories was what they had to get. There were very many children working in the factories who, on the ground of humanity, ought not to be. It was said that infectious disease might be communicated in factories, but the same might be said about schools, and there was no medical inspection of schools. If infectious diseases were to be prevented schools, much more than factories, would have to be placed under inspection. The fact was, this was a survival of an old arrangement, introduced when the principle of "age" was before the mind of Parliament, and it was to assist the doctor in determining the age that a little more discretion was given to him, and so he was allowed to prevent the child from going to work. If they were allowed to remain it would impose a very severe tax upon the employer of labour, and upon the workmen for a very small result indeed. He hoped the present system would be brought to an end, and that gentlemen who hold the opinion of the member for Sheffield (Mr. Mundella) should introduce a new clause into the Bill for the purpose of giving periodical examinations the expense of which ought not to be borne by the employers or the operatives, but by the State, on the same grounds as the expense of the factory inspectors is defrayed by the State.

Mr. Campbell pointed out that there had been no deputation whatever from Scotland against the continuance of the factory surgeons, and that this clause ought not to apply to Scotland.

Mr. Fenwick was addressing the Committee when the Committee was adjourned.

On resuming the consideration of the clause on Thursday,

Mr. Addison remarked that though he did not impugn the good faith in which the hon. member for Sheffield (Mr. Mundella) had made the statement concerning the charges made by employers in Lancashire, he thought the statement was founded upon very inaccurate information. That charge was illegal, and it was almost idle to suppose that it could go on without frequent complaint being made. The practice would not be tolerated amongst the men in Lancashire for a moment. He hoped the hon. member would withdraw the statement, or give them fuller particulars about it.

Mr. Mundella said he had been informed by representatives of workmen since the committee had been sitting that such was the case, and he held in his hands a letter signed by a medical man, an M.D., and a professional man of experience, which corroborated every word he had said. If the Home Secretary would give a committee to inquire into the office of certifying surgeons, and how it had been worked in the past, he would place the evidence he had before it, or he was willing to place it in the hands of the Home Secretary himself. They could not charge him with making an unfounded statement when he spoke on the written statements of professional men of standing, of liberal education, who spoke of this matter from their own experience. Mr. Mundella then announced that a note from Dr. Barr of Bury had just been placed in his hands, stating that several cases of such unjust payment had occurred in his practice, and he was present and prepared to prove it.

Viscount Cranborne could not help feeling that there were some employers who did take advantage of the fees, and it was probable that some parents sent their children to mills in an unfit condition. Under these circumstances, was it a good thing to take away the protection which the law provides, at an expense absolutely trifling, for these children who, in the case of employers or parents failing to do their duty, had nothing to fall back upon except the certifying surgeon? The surgeons did reject large numbers, but even if they rejected few, those who were not presented on account of the preventive operation of the certifying surgeon may be very many. Though his constituency was decidedly against the retention of the certifying surgeons, he could not bring himself to destroy the protection which may be necessary in some cases, however few, and he would support the amendment.

Mr. McLean (Oldham) said he held in his hands a list of ninety-one employers who pursued the practice spoken of by Mr. Mundella. He

entirely agreed with the remarks of the hon. member (Viscount Cranborne), that sufficient evidence had not been placed before the committee to show that it was desirable to do away with the certifying surgeons. They must see from the very remarkable evidence of Dr. Barr that it was not a farce, and that in many cases sickly and diseased children were prevented from going to work in mills. He did not think that public opinion in England would be satisfied if the certifying surgeons were abolished, so long as children of tender years are at work in factories. It was necessary that there should be some impartial guarantee from without to protect children when necessary against the greed either of parents or of employers.

Mr. Shaw Lefevre said every Home Secretary up till now had considered the institution one of the essential elements of factory legislation, and he could not but think that the discussion of the subject in that Committee would have a very great effect upon any future medical examinations which had to be made.

Mr. Chamberlain said if it was the case that parents were charged for the certificates it was improper and reprehensible, but it had nothing to do with the merits of the appointment. In Birmingham no complaints whatever had been received. They were perfectly satisfied with the existing arrangement. It was not necessary, in justifying factory surgeons, to impute misconduct to parents or employers. It was quite impossible to hold the employer personally responsible for the condition of health of the children who offered themselves for employment. Although some cases had been brought to notice involving serious condemnation of the parents, in some cases the parents themselves were not aware of the character of the disease or injury from which the children were suffering; and therefore it was to their advantage, and to the advantage of the employer, that some experienced and thoroughly competent and impartial authority should be called upon to decide the matter, seeing that the expense was so small. There was undoubted proof that in a very considerable number of cases serious evils had been prevented by their employment. He expressed the hope that the Government, who from the evidence in their possession had brought forward this proposal, would be willing, in view of the further evidence now received, that it should be withdrawn.

Mr. Byron Reed, Mr. Sidney Buxton, Mr. Barran, Mr. Fenwick, and Mr. Hoyle having taken part in the discussion, Sir Wm. Houldsworth thought it would be better to stop the present system, and to raise the whole question by amendments or in some other form, and examine it from an unprejudiced point of view.

Mr. Briggs Priestley strongly opposed the retention of the certifying factory surgeons. The discussion that morning had suddenly given a great premium to the medical profession. They would now want doctors almost innumerable. They could not stop where they were. If he was asked to answer the question, "What shall we do with our boys?" he thought the best thing to say was, "Send them into the medical profession."

On a division the following members voted 'Ay" for the retention of the Clause proposing to abolish the Certifying Surgeons:—Mr. Addison, Mr. Barran, Mr. Coddington, Mr. Fenwick, Sir William Houldsworth, Mr. Matthews, Mr. Briggs Priestley, Mr. T. H. Sidebottom, Mr. Stuart Wortley.

The following thirty-nine members voted for its rejection:—Messrs. Abraham (Rhondda Valley), Baring, Barnes, Brunner, Buchanan, Sydney Buxton, J. A. Campbell, Joseph Chamberlain, Colman, Craig, Viscount Cranborne, Sir Charles Dalrymple, Mr. Dixon-Hartland, Colonel Eyre, Dr. Farquharson, Sir Julian Goldsmid, Messrs. Howell Hoyle, George Shaw Lefevre, Lowther, Sir John Lubbock, Messrs. Macartney, J. M. Maclean, M'Lagan, Mundella, Sir Stafford Northcote, Messrs. Oldroyd, Briggs Priestley, Randell, Byron Reed, Edmund Robertson, Brook Robinson, Samuel Smith, Mark Stewart, Dr. Tanner, Messrs. Tomlinson, Wallace, Whitley, Stephen Williamson, and Wood.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ASHWELL, MICHAEL H., M.R.C.S., L.S.A., has been appointed Consulting Physician to the North Staffordshire Infirmary and Eye Hospital, Stoke-upon-Trent.

BARRITT, G. L., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Spalding Workhouse and the Eastern District of the Spalding Union, vice Morris, resigned.

BERRY, EDMUND, L.K.Q.C.P. Irel., L.F.P.S. Glasg., has been reappointed Medical Officer for Leyland.

BETTS, WILLIAM ANDREW, M.B., C.M. Edin., has been appointed Junior House Surgeon to the Royal Southern Hospital, Liverpool.

BIDWELL, L. A., M.R.C.S., has been appointed Assistant Surgeon to the West London Hospital.

BROCK, W. J., M.B., C.M. Edin., B.Sc., F.F.P.S. Glasg., has been appointed Medical Officer of Health for the combined counties of Mid Lothian, West Lothian, and Peebles.

BRONNER, ADOLF, M.D. Heidelb., M.R.C.S., has been appointed *Honorary* Laryngologist to the Bradford Infirmary (not "Laryngologist," as announced last week).

BUTTERFIELD, H., M.R.C.S., has been reappointed Medical Officer of Health for the West Kent Combined Sanitary District of the Sevenoaks Union.

DAVIES, EDWD., M.D. St. And., M.R.C.S., has been reappointed Medical Officer for the No. 2 Rural District of the Wrexham Union.

DAVIES, E. P., M.R.C.S., has been appointed Consulting Surgeon to the Carmarthen Infirmary.

DISTIN, HOWARD, M.R.C.S., L.R.C.P., has been appointed Resident Clinical Assistant at Bethlem Hospital.

FIELD, FREDERICK ARTHUR, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the West Norfolk and Lynn Hospital, King's Lynn.

GODFREY, H. J. C., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Second District of the Bridlington Union.

HESLOP, WM. J., L.R.C.P. Irel., F.R.C.S. Edin., has been reappointed Medical Officer of Health for the Stretford Union District.

LANE, J. E., F.R.C.S., has been appointed Surgeon in charge of Outpatients to St. Mary's Hospital, vice Pye.

LENDON, A. A., M.D. Lond., M.R.C.S., has been appointed Honorary Physician to the Adelaide Hospital, South Australia.

MCALISTER, W. R. A., M.D., M.Ch. Irel., has been appointed Medical Officer of Sheils Institution, Carrickfergus.

MCLEAN, CHAS. J. RUSSELL, M.D., C.M. Edin., has been reappointed Medical Officer of Health to the Yeadon Urban Sanitary Authority.

MORROW, J. S., B.A., M.B., has been appointed House Physician to the Belfast Royal Hospital, vice W. A. Wheeler, resigned.

NEILSON, H. J., M.D., C.M. Glasg., has been appointed Surgeon to the Midland Railway *employés* for those Districts rendered vacant by the death of Mr. W. Maltby.

NICHOLLS, HUBERT, M.R.C.S., M.B. Cantab., has been appointed Assistant Physician to the North Staffordshire Infirmary and Eye Hospital, Stoke-upon-Trent.

NUTHALL, ROBT. L. S., M.R.C.S., L.R.C.P. Lond., has been appointed Fifth Assistant Medical Officer to Hanwell Asylum.

OSBURN, H. B., M.R.C.S., L.R.C.P., has been appointed Anæsthetist and Registrar to the Royal Hospital for Children and Women, Waterloo-bridge-road, vice V. W. Wheaton.

ROBINSON, G. DRUMMOND, M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, vice Dr. Mortlock.

SAYRES, A. W. F., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

STURGE, W. HOWARD, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the London Hospital.

SWIFT, HARRY, B.A., M.D. Cantab., M.R.C.S., has been appointed Honorary Assistant Physician to the Adelaide Hospital, South Australia, vice Lendon.

THORNE, J. M., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Royal Hospital for Children and Women, Waterloo-bridge-road, vice Enoch Moss.

TILL, GEO. W., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health for the Rural Sanitary District of the Worcester Union, vice Strange.

TURNEY, HORACE G., M.B. Oxon., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Assistant Physician to St. Thomas's Hospital.

VANN, A. M., M.R.C.S., has been appointed, *pro tem.*, Assistant Medical Officer for the Brandon Union District, Durham.

WHITTINGDALE, J. F. L., M.B. Camb., M.R.C.S., has been appointed Medical Officer of Health for Sherborne, Dorset.

WILLIAMS, E. R., M.R.C.S., has been appointed Honorary Medical Officer to the Carmarthen Infirmary, vice E. P. Davies, resigned; also Surgeon to the Great West Provident Society, vice J. Hughes, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Extra Acting Physician. Salary £60 per annum.

CHELSEA.—Medical Officer of Health, Food and Drugs Analyst, and Gas Examiner. Salary £450 per annum.

COUNTY BOROUGH OF BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent. Salary £200 per annum, with board and residence. (Apply to the Town Clerk, Town Clerk's Office, Bradford.)

DEVONSHIRE HOSPITAL, Buxton.—House Surgeon. Salary £100 per annum, with board, furnished apartments, and washing.

DEVONSHIRE HOSPITAL, Buxton.—Assistant House Surgeon. Salary £50 per annum, with board, furnished apartments, and washing.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, Cardiff. Assistant House Surgeon for six months. Board, lodging, and washing provided.

GUEST HOSPITAL, Dudley.—Resident Medical Officer. Salary £100 per annum, with board, residence, attendance, and washing.

GENERAL INFIRMARY, Leeds.—Resident House Physician for twelve months. Board, lodging, and washing provided.

GENERAL INFIRMARY, Leeds.—Two Resident House Surgeons for twelve months. Board, lodging, and washing provided.

GENERAL INFIRMARY, Leeds.—A Resident Officer at the Ida Hospital for six months, with honorarium of £25.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary £200 per annum, with board and residence.

HULME DISPENSARY, Manchester.—Honorary Surgeon.

JENNY LIND INFIRMARY FOR SICK CHILDREN, Norwich.—Physician.

KING'S COLLEGE, London.—Demonstrator of Public Health.

LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Practitioner. Salary £150 per annum and all midwifery fees.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Resident House Surgeon. Salary £70 per annum, with furnished rooms, attendance, and board.

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Assistant, out-door. Salary £120 per annum. (Apply to the Secretary, 12, North Parade, Lincoln.)

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Resident Medical Officer at Bowdon, Cheshire. Salary £60 per annum, with board, apartments, and washing.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House Surgeon. Salary £90 per annum, with apartments, gas, coal, and washing free.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Assistant Resident Medical Officer for six months.

NOTTINGHAM BOROUGH ASYLUM, Mapperley-hill.—Resident Clinical Assistant for six months. No salary. Board and residence provided.

SUSSEX COUNTY HOSPITAL.—House Physician. Board and residence in the Hospital, with washing, and a salary of £80, rising to £80 per annum, at the discretion of the Committee of Management.

WALLASEY DISPENSARY.—House Surgeon. Salary £110 per annum, with furnished apartments, coal, and gas.

WESTERN SKIN HOSPITAL, 179, Great Portland street, W.—Honorary Physician for twelve months in the first instance.

WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon and Dispenser, who shall also be Assistant Secretary, for two years. Salary £100 per annum, with board, furnished rooms, fire, lights, attendance, and washing.

WOLVERHAMPTON EYE INFIRMARY.—Resident Assistant for six months. Rooms, with board and washing, provided.

YORK DISPENSARY.—Resident Medical Officer. Salary £130 a year, with furnished apartments, coal, and gas.

Births, Marriages, and Deaths.

BIRTHS.

BRAND.—On April 6th, at Invery, Great Driffield, E. Yorks, the wife of Dr. Brand of a son.

CUNNINGHAM.—On April 9th, at De Vere Gardens, Kensington, W., the wife of Surgeon-General J. M. Cunningham, C.S.I., of a son.

ELLIS.—On March 23rd, at Apsley Villa, Wellington, Somerset, the wife of Dr. W. Gilmore Ellis, of Singapore, of a son.

FIRTH.—On April 7th, at Parrock-street, Gravesend, the wife of Charles Firth, M.D., F.R.C.S., of a son.

FRENCH.—On April 8th, at Winterbourne, Hornsey, the wife of George French, F.R.C.S. Eng., of a daughter.

EVANS.—On April 9th, at Denmark Lodge, The Grove, Clapham-common, the wife of Dr. Lewis Evans of a daughter.

GRIFFITHS.—On April 11th, at Kensington-square, the wife of Herbert T. Griffiths, M.D., of a son.

PETTY.—On March 11th, at Belgrano, Buenos Ayres, Argentine Republic, the wife of Dr. Michael John Petty of a daughter.

SCOTT.—On April 10th, at Fallowfield, Manchester, the wife of W. Sawers Scott, M.D., of a son.

SHUTE.—On April 8th, at Granby-place, Northfleet, Kent, the wife of G. S. Shute, M.D., of a daughter (premature).

STEVENS.—On April 15th, at High-street, Stoke Newington, N., the wife of A. Felix Stevens, M.D., of a son.

MARRIAGES.

LIDIARD—EDMONDSON.—On April 9th, at St. Mary's Parish Church, Dolgelly, Richard Atherstone Billiald, L.R.C.P., M.R.C.S., of Kington, Herefordshire, to Annie Amelia, third surviving daughter of Alfred Edmondson, Esq., of Dolgelly.

BRAYE—AYRES.—On April 2nd, at St. Mary's Church, Reading, by the Rev. S. H. Soole, Vicar of Greyfriars, Reginald James Braye, of Leicester, L.R.C.P., M.R.C.S., youngest son of James Hardwick Braye, of Wellington-square, Hastings, to Jessie, youngest daughter of the late Charles Ayres, of Reading.

COX—ILES.—On April 14th, at Watford Parish Church, by the Rev. R. Lee James, Alfred Edward Cox, M.R.C.S., L.R.C.P., youngest son of the late William Henry Cox, Esq., of Duffield, Derbyshire, to Sybil Maud Iles, third daughter of the late F. H. Wilson Iles, M.D., of Watford.

LIDIARD—SLATER.—On April 9th, at the Friends' Meeting House, Hull, Sydney Robert Lidiard, of Berkeley House, Anlaby-road, Hull, M.R.C.S. and L.R.C.P., son of the late James Thomas Lidiard, of Bixton, to Margaret Slater, of Westbourne-avenue, Hull, youngest daughter of the late William Slater, of Carlisle.

LUSON—LESLIE.—On April 6th, at St. George's Church, Folla Rule, Aberdeenshire, Thomas Luson, F.R.C.S.E., of Cromer, Norfolk, to Mary Walker, second daughter of the Rev. Alex. Leslie, M.A., Rector of Folla Rule.

MOLSON—LEESON.—On April 11th, at St. Andrew's, Wells-street, John Eisdale Molson, M.B. Cantab., son of S. Elsdale Molson, of Montreal, to Mary, elder daughter of A. E. Leeson, M.D., of Dorset-square.

SAVAGE—BOUSFIELD.—At Cape Town, South Africa, S. Radford Savage, M.B. &c., Principal Medical Officer, Basutoland, to Mary J. Bousfield, daughter of the Right Rev. Bishop of Pretoria, Transvaal.

SHELSWELL—BERRIDGE.—On April 8th, at St. Peter-ad-Vincula, Ratley, Warwickshire, William Arthur Shelswell, L.R.C.P. Lond., M.R.C.S., of Shenington, to Ida, third daughter of Mr. T. W. Berridge, of The Uplands, Banbury.

DEATHS.

BLACKMORE.—On April 7th, at St. Mary's Hospital, Paddington, the result of an accident, George Henry Blackmore, M.R.C.S., L.R.C.P., of Worcester Lodge, Shepherd's-bush, second son of the late Christopher Blackmore, Esq., of Shaftesbury-road, Hammersmith, aged 40.

BOLTON.—On April 5th, at Kustendjie, Roumania, Teresina Arpalice Emily Beda, aged 9 years, of diphtheritic scarlatina, a loving and loved child, daughter of Dr. A. Irwin Bolton and Teresina Bolton.

HALL.—On March 24th, at the Lodge Avenue, Southampton, William Henry Hall, M.D. Glasg., M.R.C.S., L.R.C.S. Irel., aged 72.

HOFFMEISTER.—On April 9th, at Clifton House, Cowes, George Bernard Hoffmeister, M.A., M.D., youngest son of the late Sir William Hoffmeister, M.D., aged 32.

LAMB.—On April 11th, at 18, Price-street, Birkenhead, Joseph Lamb, M.R.C.S., aged 50.

PENNINGTON.—At Pembroke-place, Liverpool, T. Richardson Pennington, L.F.P.S. Glasg., aged 48.

TIZARD.—On April 7th, suddenly, at Bayeliffe, Weymouth, Henry Tizard, M.D., aged 67.

WARD.—On April 14th, at Blyth, Northumberland, Henry Debord Ward, M.D., M.R.C.S., L.M., second son of Gilbert Ward, M.R.C.S., aged 53.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 16th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 10	30·16	N.E.	43	42	63	51	41	·08	Overcast
,, 11	30·14	N.E.	42	41	70	50	39	..	Overcast
,, 12	30·14	N.E.	42	40	69	49	38	..	Cloudy
,, 13	30·09	E.	42	39	60	49	38	·15	Overcast
,, 14	30·15	N.	43	39	89	52	38	..	Cloudy
,, 15	30·19	W.	45	43	83	58	42	..	Overcast
,, 16	30·21	W.	50	46	93	56	43	..	Cloudy

Medical Diary for the ensuing Week.

Monday, April 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. G. A. Heron: The Use of Koch's Remedy in Lupus Vulgaris and in Tuberculosis of the Lung. Patients on view at 8 P.M.

Tuesday, April 21.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. J. Scott Keltie: The Geography of Africa.

ROYAL STATISTICAL SOCIETY (Lecture Theatre, Museum of Practical Geology, Jermyn-st., S.W.).—7.45 P.M. Dr. J. Charles Steele: The Charitable Aspects of Medical Relief.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. C. Mackenzie: Melano ic Sarcomatosis.—Mr. Sydney Jones: Perforation of Gall-bladder.—Mr. H. H. Clutton: Osteitis Deformans of Tibia.—Dr. W. B. Hadden: Ulceration and great Contraction of Stomach.—Mr. W. H. Battle: Acute Epiphysitis.—Mr. E. Hurry Fenwick: Tubercular Bladder after Koch's Treatment.—Mr. Solly: Myeloid Tumour of Tibia with Secondary Growths.—Mr. W. Anderson: Fæcal Fistula at Umbilicus.—Mr. W. H. Battle: Sarcoma of Femur.—Dr. West: Secondary Sarcoma of Lung. Card Specimens:—Dr. Howship Dickinson: (1) Aneurysm of the Abdominal Aorta opening into the Duodenum; (2) Aneurysm of the Thoracic Aorta opening into the Left Bronchus.—Mr. H. H. Clutton: Extensive Rodent Ulcer of the Scalp.—Mr. J. H. Targett: Melanotic Sarcoma of Bladder.

Wednesday, April 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—8 P.M. Dr. A. T. Davies will exhibit a case of Graves' Disease. Mr. F. R. Humphreys: Two cases of Pneumonia (migrating) with complications.—Dr. E. G. Gilbert: Some Remarks on Colds.—Dr. J. Langton Hewer: Extra-uterine Fœtation.—Mr. A. H. Tubby: The Pathology and Treatment of Acute Necrosis of Bone.

Thursday, April 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: Recent Spectroscopic Investigations.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Adjourned Discussion on Dr. Bell's paper ("The Treatment of Chronic Disease of the Uterine Adnexa").

Friday, April 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8 P.M., Living Specimens:—Mr. Bilton Pollard: Old (? Congenital) Dislocation of Patella reduced by Intra-articular Operation.—Dr. J. Taylor (for Dr. Hughlings Jackson): Two cases of Muscular Atrophy.—Mr. F. B. Jessett: (1) A case of Estlander's Operation; (2) A case of Gastro-enterostomy for Pyloric Cancer.—Dr. Ewart and Mr. W. H. Bennett: A case of Gastro-jejunostomy for Pyloric Obstruction.—Mr. W. H. Bennett: Symmetrical Enlargement of Parotid Glands.—Mr. Bruce Clark: Case showing a New Method of Amputation just below the Knee-joint.—Dr. F. Hawkins: Two cases of Congenital Disease of the Heart.—Mr. W. H. Battle: (1) A case of Recurrent Dislocation of the Patellæ; (2) A case showing Recovery from Lupus Erythematosus after Internal Treatment only; (3) A case showing the result of Plastic Operation for Extroversion of the Bladder. 9 P.M., Papers: Mr. W. H. Brown: A case of Gastro-jejunostomy.—Mr. Arbuthnot Lane: Two cases of Resection of Intestine by Senn's Method.—Mr. C. J. Symonds: Two cases in which a Sequestrum was Removed from the Neck of the Femur without injury to the joint; recovery in both, and in one with a perfect joint.

ROYAL INSTITUTION.—9 P.M. Rev. Canon Ainger: Euphuism—Past and Present.

Saturday, April 25.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. Silvanus P. Thompson: The Dynamo.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A FATAL RESULT OF BAPTISM BY IMMERSION.

A MOST distressing occurrence is reported in a German medical journal. A young woman who was a candidate for baptism by immersion amongst the Baptists, after undressing to her chemise and stockings in the vestry, put on a cotton wrapper and came into the chapel to be baptised. She was completely immersed in the baptistry, which was filled with rain-water at a temperature of about 40° F., the ceremony not lasting above a minute. After this she walked back into the vestry, but immediately became unconscious, and, notwithstanding all possible efforts being made to resuscitate her, succumbed. The post-mortem examination revealed that there was cardiac disease. As, however, there was no doubt that the immersion was the determining cause of death, the unfortunate minister who performed the ceremony was at first sentenced to a week's imprisonment. This was, however, ultimately remitted. The neighbouring Baptist congregations have, it is said, taken warning by the case, and have arranged to have the water for immersion always warmed in future, as is, we believe, the custom in this country. Another suggestion naturally arises from such an occurrence as the above—namely, that persons suspected of heart disease should have the benefit of a medical examination before being submitted to the rite of immersion.

The Registrar of the College of Physicians and Surgeons, Ontario.—The information contained in the last Students' Number of THE LANCET regarding the requirements as to preliminary education in France, Germany, and other foreign countries is, we believe, quite correct. It was collected from official sources and by means of conversation and correspondence with many foreigners and Englishmen who were in a position to give trustworthy opinions on the subject. We do not think there is any room for doubt that, speaking broadly, medical students in almost every continental country are required to produce evidence of an amount of general education quite equal to that which would obtain for an English student the degree of B.A. The main exception, the case of the French *Officiat*, is now on the point of being abolished.

MEDICAL EDUCATION IN INDIA.

THE following is taken from the *Madras Times*:—

"Dr. Wellington Grey, the Principal of the Grant Medical College, Bombay, has taken up the old question of raising the standard of the Entrance Examination. It has been whispered about for some time now that Government is pressing for reforms, especially in regard to those extra qualifications which the University should insist upon as a preliminary to professional study; and, as if in view of this demand, Dr. Wellington Grey has laid before the Faculty of Medicine a comprehensive scheme for dealing with the regulations. Dr. Grey's propositions go further, and cover wider ground than any previous suggestions on the subject; but it would appear that they are not likely to meet with much support from the University, as, among other things, they suggest the reduction of the qualification of Licentiate of Medicine and Surgery from a degree to a mere licence, and nothing more."

Mr. J. Gallop should apply to M. de Clausen, 37, Fitzroy-square, W.

DISPENSING BY MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "Prescriber," has given us much of the *pros* and *cons* of this question, and I am glad to see that, to some extent, he agrees with my letter; but I cannot agree with him in the proposal that dispensing by medical men should be given up gradually. If we have to wait for gradual processes, I am afraid the result will be nothing. The whole profession ought to rise and deal with the present evil at once—as one should deal with all evils—with one voice and one common act. No one practitioner is likely to give up the practice until all his rivals have given it up also. Gradual, one-by-one processes certainly will not do. "All together, and at once," should be the watchword in this matter, the watchword of the profession. From my experience of druggists in those parts of the country—e.g., even the north of Scotland, where they do all the dispensing, and the "doctors" do none—I am fully satisfied that such druggists are perfectly reliable and trustworthy. It is in the places where the "doctors" do their own dispensing that druggists may not dispense the occasional prescriptions which come to them exactly as ordered. And why? Because, under such circumstances, the poor struggling druggist cannot afford to keep in stock every representative of the Pharmacopœia, officinal and non-officinal, for the sake of occasional prescriptions. I have had to alter my prescriptions again and again to accommodate them to the limited stock of a druggist's dispensary. No, the druggist has to keep in stock, and rely for his living upon, patent medicines, his own stock mixtures and salves, and his own prescribing. I have not yet met with a single druggist—and I have spoken with many about this matter—who would not be willing to give up all his present struggle methods, legitimate and non-legitimate, of making a living, if practitioners would give over their dispensing to them. They would give up prescribing, and the patent medicine trade would probably decay. They would, also, then be able to afford to keep in stock every best drug and requisite prescribed by the "doctors."

As for prescriptions being left with druggists and appropriated by them for their own stock medicines, and as for patients taking their prescriptions to be "made up" again and again without the knowledge of the prescriber, practitioners and druggists should be able to arrange these matters mutually and amicably. For instance, the prescription should be sent by prescriber's or by patient's messenger to the druggist; the druggist retains the prescription, he charges the prescriber a stipulated amount for dispensing the prescription, and the prescriber includes that charge in the fee he claims of the patient. This works very well, and quite pays the prescriber in the end, for he may thus need no assistant, and of course no private dispenser. Or, suppose the practitioner charges a moderate fee for his advice or attendance: the patient sends the prescription to the druggist, who retains the prescription, and charges a moderate fee to the patient. Or, presuming that the patient pays a larger fee for the prescription, suppose an arrangement is made whereby the druggist refuses to repeat the medicine according to the prescription retained by patient unless ordered in writing by the prescriber. This method would prevent dangerous medicines being abused at the patient's ignorant will, as instanced by your correspondent "Prescriber." Of course there are other alternatives, according to the particular convenience of doctors, druggists, and patients. In order to secure proper mutual understanding between practitioners and druggists carrying out one of above methods, even Ethical Associations with tariffs, &c., might be formed, in which the two professions would combine. I think the subject is ripe for careful consideration and discussion by the whole profession of general practitioners.

One thing more permit me to say, and it is this: that it is surely unwise, if not unjust, in these days, for we principals to expect qualified assistants, men often of great training and refined tastes, in addition to walking their rounds &c., to do the hurried, slopping, manual drudgery of dispensing. Such men, in the receipt of an honourable salary too, ought to be allowed time for general and social culture, as well as for following up the medical literature and science of these progressive days. In this latter direction such gentlemen might greatly help their principals, and much more time might be given, with advantage to patients, "doctors," and to science, to the details of diagnosis and treatment. Certainly no dispensing practitioner, even with a qualified medical assistant, should be without a dispenser, whose duties should be only those of dispensing and bookkeeping, on duty in the dispensary the more important hours of the daytime.—Yours truly,

April, 1891. SICK OF DISPENSING.

SUPERNUMERARY FINGER.

WE have received a communication from a correspondent in Cambridgeport, Mass., U.S.A., accompanied by a specimen of supernumerary finger, but without name and address.

Miss A. Palmer (Madras).—There is no special training institution of the kind alluded to by our correspondent. Nurses can receive their training at any large and recognised hospital. The *Army Circular*, India, of Nov. 5th, 1890, gives full information, and a copy could probably be obtained by application to the Surgeon-General's Office, Her Majesty's Forces, Madras.

Assistant has not stated whether he is qualified or not, and this is an important element in the question. Anyway, it is a matter for a solicitor to decide, in view of the terms of the agreement.

H. B.—The information is given in our last number.

MEDICAL PRACTITIONERS' UNION AND "THE DOCTORS' CLUB."

To the Editors of THE LANCET.

SIRS,—If it be true that "It's never too late to mend," I, with the majority of general practitioners, hail with satisfaction the formation of a General Practitioners' Union, a Union which will have ample scope in this country for bettering the lot of the "great underpaid." Let us trust it may have equal power. There is no doubt, as your correspondent says, we shall succeed if we are only united. Unfortunately, our hopes must rest on that little word "if."

One serious grievance under which we chronically suffer I would urgently recommend to the notice of the Union—viz., the indiscriminate charity which is bestowed on a large section of the community under the pseudonym of "medical providence." I allude particularly to those societies for sponging on medical men—societies whose agents infest the country and make a regular house-to-house canvass of the working classes and even tradesmen, and induce them to enter their wives and children in the "doctor's club" for the paltry pittance of 1*d.* for a woman and ½*d.* for each child per week, in return for medical attendance and medicines. Such a system of insurance may possibly "pay" the medical officer in the case of the Oddfellows and Foresters, in which societies the members are male adults, and are only admitted if in sound health. But what are we to say in the case of women and children, especially the latter, who are constantly liable to illness, and yet, strange to say, pay one-half the subscription paid by a healthy man? Any insurance company which issued policies with premiums so small, and where the certainty existed of being called upon for benefits proportionately so great, would soon be insolvent. Yet we carry on such a system with the same result, the difference being that the benefits we give are in the form of labour instead of money. The principle, however, remains the same.

Take this instance of the injury done to us by such societies, which know no such restrictions as wage limit. The wife of a first-class artisan, who previously has paid her doctor well, enters her first child a few months old in a medical provident society, of which her doctor is medical officer. Supposing that child never so healthy, the chances are it will require medical attendance every year for some years to come, which means an annual payment of, let us say, £4 to the family doctor; but by the simple expedient of paying a miserable 2*s.* per annum, hey! presto! the doctor's bill disappears. So also the doctor's profit. It must be conceded that this is a good bargain for an anxious mother, with all the horrors of difficult dentition, measles, convulsions, &c., looming in the not far distant future, and the Friendly Societies' Medical Alliance solemnly records "with satisfaction the friendly spirit" evinced by both parties to such a contract. Look on the other side. There is a loss of £4 per annum to the medical profession in this one case, for it cannot be contended that the donations of the other members of such a club compensate for this loss when the numerous and frequent ailments of women and children are considered. Another far-seeing mother will say: "I have entered myself and all my children in the club, as we are always having illness in the house"; and this is the sort of thing on which is based that "friendly spirit" with which the president of the Friendly Societies' Alliance says the medical faculty regards its methods. The question naturally presents itself, Why do we as intelligent members of society make contracts on terms which an ignorant labourer would repudiate as an insult to his intelligence? The answer, in my opinion, is this. Firstly, we have a minority disloyal to themselves, their profession, and to their *alma mater*, to whom they have vowed to uphold the honour and dignity of their calling; secondly, want of union in our ranks. I feel sure statistics in abundance will be forthcoming to show clearly the rottenness of a system carried on independently of wage-limit and other safeguards against abuse—a system conferring a real boon, though maybe in some cases a doubtful one, on the "benefited" family, and inflicting an undoubted curse upon the already underpaid practitioner. The question of these clubs is one equally pressing as hospital abuse, and medical men for all time will owe a large debt of gratitude to the Practitioners' Union of to-day should it be the means of remedying this and many other glaring abuses which are at the root of a general and widespread dissatisfaction amongst us. While barefaced quackery flourishes, unqualified practice is rampant in our midst, chemists usurp our lawful functions, and cheap doctoring is the order of the day. We may wait in vain for those results for which we have toiled and striven and paid so dearly.—I am, Sirs, yours faithfully,

April 14th. G. P.

ADVERTISING PRACTITIONERS IN MILE-END-ROAD.

WE have received a letter from Messrs. Francis and Calley, solicitors, of Austin Friars, who say:—

"Our client, Dr. Richard Loughrey, in practice at 146, Mile-end-road, has consulted us with reference to a publication in your issue of the 11th inst. (page 864) headed 'Advertising Practitioners in Mile-end-road,' commenting upon 'A remarkable handbill, emanating from 146, Mile-end-road.' We beg to inform you that our client on the 31st January, 1884, purchased from the executrix of the late Dr. Hanks the lease of 146, Mile-end-road, and no such handbills have since that time (upwards of seven years ago) been issued from such premises. If any such handbills were in circulation prior to that date, Dr. Loughrey was in no way privy to, or interested in, the circulation."

Of course, if we had been aware of the facts above stated by Messrs. Francis and Calley, we should not have drawn attention to the matter, though the handbill in itself deserves the comment.

Registered.—1. If our correspondent will refer to the last Students' Number of THE LANCET, he will see that several of the colonies require a fee on registering a practitioner with British qualifications, even though he has been registered in Great Britain. Some of the colonies also, in addition to a large fee (in British Columbia it is $100), oblige candidates for registration to pass an examination. The Jamaica fee of £1 is therefore an exceedingly lenient infliction compared with that enforced in some other colonies.—2. There is no University degree which precludes the holder from dispensing medicines; and it is not very unusual for M.D.'s of Oxford, Cambridge, and London to dispense, whether they practise in the colonies or at home. An F.R.C.S. may dispense, but must not keep an open shop. Surgeons to London hospitals are usually precluded by the hospital rules from general practice and from dispensing. M.R.C.P.'s are precluded from dispensing, from making arrangements with chemists, from entering into partnership, and from suing for their fees.

Army Surgeon is thanked. The erroneous statements to which our correspondent calls attention had not escaped our notice, and will, we imagine, be at once recognised by anyone acquainted with the subject.

IRIDESCENT COOKED MEAT.

To the Editors of THE LANCET.

SIRS,—Cooked and salted meats, as ham, beef, mutton, veal, pork, &c., frequently show iridescence similar to that produced by light falling upon the scales of freshly caught fish. This iridescence usually affects only a part of a cooked or salted joint; but it may possibly be associated with decomposition in another portion of the same joint. This iridescence (apparently bacterial) seems due to conditions probably preceding decomposition, rather than necessarily accompanying putrefaction. Where the meat has been otherwise sound, sweet, and healthy, often have I eaten, and seen others eat, iridescent cooked and salted meats without my having been able to trace any subsequent disturbance or illness therefrom. However, I consider iridescent meat as suspiciously doubtful, and especially inadvisable where any lesions may exist along any portion of the alimentary tract, and above all to be avoided where there may be ulcerations about the intestines. Whilst myself further investigating this matter, I shall be grateful to learn of any clinical, pathological, or bacterial work or research on this branch of meat inspection—a subject which has received too scanty attention from medical men.—I am, Sirs, yours faithfully,

Brighton, April 6th, 1891. J. LAWRENCE-HAMILTON, M.R.C.S.

KOOPMANN'S FIRE BLOCKS.

A CORRESPONDENT desires to be informed where the above fuel, which is said to be smokeless, may be obtained.

Prescriber.—These questions are discussed very fully in the chapter on Dispensing Foreign Prescriptions in "The Art of Dispensing," published at the *Chemist and Druggist* office.

Dr. Rentoul's communication should be sent to one of our contemporaries. It would be altogether out of place in our columns.

Dr. James Gairdner (Crieff) is thanked. He will see that the lamentable occurrence is fully reported in our present issue.

THE RECENT DRAMATIC ENTERTAINMENT FOR THE BENEFIT OF THE ROYAL FREE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—As no notice may have been sent you of the entertainment given by the Amateur Dramatic Club of St. Bartholomew's Hospital on behalf of the rebuilding fund of the Royal Free Hospital, may I be permitted to at least personally express the warm thanks which are due to the Club for the extreme kindness which prompted a large and rich hospital thus to aid a smaller and less independent neighbour? That the entertainment at St. George's Hall on the 9th inst. was a great success, before a crowded audience, is known to all, the performance, "On Guard," being represented and placed upon the stage without a flaw. The many points of humour and pathos in the comedy were fully appreciated. The lady orchestra equally well acquitted themselves in the selections of music.—I am, Sirs, yours faithfully,

FREDERICK J. GANT,

April, 1891. Consulting Surgeon to the Royal Free Hospital.

AGORAPHOBIA AND "EREMOPHOBIA."

To the Editors of THE LANCET.

SIRS,—The modesty which habitually restrains the members of our profession from rushing into print is so notorious that it will surprise none of them to hear that I have waited some years to allow someone else to do what I am at length reluctantly compelled to undertake.

I propose the abolition of a *lucus a non lucendo* which I discern in the word "agoraphobia." I see from a recent number of THE LANCET that the word is still used in the sense of "fear of a deserted place." I am nearly 7000 miles from my "Liddell and Scott"; but I fancy I am not mistaken in thinking that ἀγορα means a market-place—i.e., a densely crowded spot. It is asserted that in such places agoraphobiacs feel no fear, and only suffer it under exactly opposite conditions. I therefore venture to suggest the word "eremophobia" to describe this condition, deriving it, of course, from ἐρημος, a deserted place.

I offer apologies in anticipation to all those gentlemen who have already made this suggestion.

I am, Sirs, yours faithfully,

WALTER F. DALE, M.R.C.S., L.R.C.P.Lond.

Darwin Harbour, Falkland Islands, Feb. 12th, 1891.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Hale White, London; Dr. Steavenson; Mr. F. J. Gant; Dr. Macnaughton Jones, London; Mr. Poland, London; Mr. S. Snell; Messrs. Griffin and Co., London; Mr. Eschwege, London; Mr. Stilliard, Birmingham; Dr. Billinghurst, Midhurst; Dr. Collier, Oxford; Messrs. Hardman and Sons, Bury; Mr. C. C. Becke, Northampton; Messrs. Blondeau et Cie., London; Mr. Berridge, Loughborough; Messrs. Francis and Calley, London; Mr. N. S. Manning, Birmingham; Drs. Peacock and Pieterson, Kingswinford; Dr. Pyne, Toronto; Messrs. Rowntree and Co., York; Dr. Auld, Glasgow; Mr. Maylard, Glasgow; Dr. Bezly Thorne, London; Mr. Mossop, Newhaven; Mr. W. F. Dale, Falkland Islands; Dr. Rentoul, Liverpool; Dr. Coghill, Ventnor; Messrs. John Richardson and Co., Leicester; Dr. Cook, Winstree; Messrs. Pound and Co., London; Mr. E. A. Piggott, Clare; Messrs. Hearson and Co., London; Mr. Clifford, London; Dr. Thorn, Crieff; Mr. Buckston Browne, London; Dr. J. B. Pike, Loughborough; Messrs. Christy and Co., London; Miss Yates, London; Messrs. Lazard Bros. and Co., London; Mr. J. Berry, London; Dr. MacAlister; Messrs. Byles and Son, Bradford; Dr. J. W. Allan, Glasgow; Mr. W. Mawer, Wood Green; Mr. Messum, Pretoria; Mr. Blackett; Messrs. Mitchell and Co., London; Dr. Swann, Batley; Dr. J. Oliver, London; Mr. S. A. Gill, Formby; Dr. B. Walker, Spondon; Dr. Kirk, Partick; Mr. S. S. Brown, London; Prof. Charteris, Glasgow; Dr. H. N. Joynt, Birmingham; Dr. Wallace, Colchester; Dr. Malins, Birmingham; Mr. W. G. Nash, Plymouth; Mr. Pimm, Poultry; Mr. Grew, Birmingham; Dr. J. Gairdner, Crieff; Mr. Garnett, Bloomsbury; Mr. Parkhouse, Wellington; Dr. Bottentuit, Paris; Dr. Moure, Bordeaux; Mr. Nance, Hampstead; Mr. Crowther, London; Mr. Sampson, York; Mr. Lund, Bournemouth; Mr. Dayson, Monmouth; Mr. Frost, London; Dr. W. Wallace, Crick; Mr. Cameron, Bayswater; Mr. W. B. Burke, Wolverhampton; Mr. Birchall, Liverpool; Mr. Watt, London; Mr. Millard, Teddington; Mr. Anderson, Bodmin; Dr. Skerritt, Bristol; Mr. Wise, Trowbridge; Mr. Hunt, Manchester; Mr. Storer, Nottingham; Dr. T. Williams, London; Mr. Macadam, Edinburgh; Mr. Weiss, Russell-square; Mr. J. S. Aplin, Yeovil; Dr. McCallen, co. Derry; Mr. Read, Canterbury; Mr. Finlay, Longford; Mr. Griffin, Saltburn; Mr. Heap, Cheshire; Mr. Radford, Manchester; Mr. Evelyn, York; Mr. Cooke, London; Mr. Woodcock, Bradford; Mr. Hornibrook; Mr. Edwards, Birmingham; P. E., Middlesbrough; Surgery, London; O. F., London; B. F. P.; Registered; Pontypridd; Sympathy; Secretary, Jarrow Dispensary; G. P.; Secretary, General Infirmary, Leeds; Maltine Manufacturing Co., London; Medicus, London; Secretary, Bolton Infirmary; Caradoc; Hon. Secretary, Noble's General Hospital, Isle of Man; Spes, Colchester; Omega, Cardiff; Secretary, St. Mungo's College, Glasgow; Secretary, General Hospital, Loughborough; Bona Fides, Brighton; A. M. D., London; Secretary, Caledonian Insurance Co., Edinburgh; Medicine, London; Iota, London; Secretary, West Herts Infirmary.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Scott, Manchester; Mr. Armstrong, London; Messrs. Towers, Ellis, and Co., Bayswater; Mr. Sutherland, London; Messrs. Freer, Hett, and Hett, Brigg; Mr. Gilyard, Bradford; Mr. Bigg, London; Mr. Young J. Pentland, Edinburgh; Mr. F. E. Hodder, co. Cork; Messrs. Down Bros., Borough; Mr. W. Coulson, Lincoln; Mr. Halford, sen., Upper Tollington-park; Mr. Bringloe, Stratford; Miss Thompson, Tunbridge Wells; Mr. Scarlett, London; Mr. Lee, Exmouth; Messrs. Bilbrough and Kitchingman, Bradford; Dr. Swift, Adelaide; Mr. Wells, West Hampstead; Mr. Rust, Kidderminster; Messrs. Herman, Lescher, and Co., London; Mr. Knowles, Birstall; Mr. Ballance; Messrs. Benger and Co., Manchester; Mr. Graham, Dumfriesshire; Messrs. Austin and Son, Clifton; Mr. Tyte, Minchinhampton; Dr. Raby, Caterham Valley; Dr. Ryley, London; Mr. Tully, Hastings; Mr. Savage, South Africa; Mr. Dixey, Chepstow; Mr. Goodden, Bristol; Dr. Lawrence, Chepstow; Dr. Shute, Northfleet; Mr. George, Preston; Mr. Wilson, Devizes; Mr. Shimmald, Guildford; Mr. Ayres, Reading; Mr. Diver, Caterham; Mr. Simpson, Essex; Mr. Buller, Martley; Dr. Simmons, Newbury; Mr. Baker, Willenhall; Mr. Freer, Rugeley; Mr. Greville, Edinburgh; Mr. White, London; Mr. Harvey, London; Messrs. Keith and Co., Edinburgh; Mr. Branthwaite, Warwick; Messrs. Ferris and Co., Uxbridge; Dr. Hyslop, Blackpool; Miss Galloway; Dr. Deane, Ellesmere; Mr. Christy, Jarrow; Mr. Webster, Bewdley; Mr. Thin, Edinburgh; Mr. Johnston, Leicester; Mr. Dickson; Mr. Heywood, Manchester; Chemist, London; F. A. X., London; Fidelis, London; Cymro, London; W. R. V., Whitby; Garthroy, London; Warneford Asylum; M.D., London; Y. O. G., London; Secretary, Norfolk and Norwich Hospital; Hydro, Lincoln; A. E. B., Coventry; Hackney Furnishing Co., London; Assistant, London; Secretary, Taunton and Somerset Hospital; A. B. N., London; E. O. R., London; Mason, Kensington; L. D. S., Haymarket; Alpha, Manchester; Cheltenham General Hospital; Spes, London; J. G., Leeds; Manipore; Eastern Counties, London; J., Barnesley; Florence, York; A. B., South Norwood; Kensington, London; Medicus, Edinburgh; Medicus, Doncaster; Scotus, London; Prompt, London; X., York; M. F. M., Birmingham; A. C., London; Victim, London; X. Y., Truro; Doctor, Kensington.

NEWSPAPERS.—*Allen's Indian Mail, Birmingham Post, Sheffield Telegraph, Manchester Evening News, Glasgow Herald, Le Temps* (Paris), *Huddersfield Examiner, Madras Times, Builder, Northern Daily Mail, Scotsman, Sunday Times, Bombay Gazette, West Middlesex Standard, Surrey Advertiser, Mining Journal, Architect, City Press, Bristol Mercury, Law Journal, Spectator, Saturday Review, Liverpool Daily Post, Scottish Leader, Yorkshire Post, Weekly Free Press, Hertfordshire Mercury, West Middlesex Advertiser, Leeds Mercury, Insurance Record, Reading Mercury, Beckenham Journal, Windsor and Eton Gazette, Carlisle Journal, West Sussex Gazette, The Newspaper, Lincolnshire Herald, North China Herald* (Shanghai), *Dundas Star* (Canada), *Maidstone Journal, Farm, Field, and Fireside, Admiralty and Horse Guards' Gazette, The Record, The Labour World, Bath Gazette, Carlisle Express and Examiner, Dundee Advertiser, Lincolnshire Chronicle, Chester Courant, Western Morning News, Windsor and Eton Express*, &c., have been received.

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